

Capability Guide

carnellgroup.co.uk

Carnell™

We imagineer tomorrow today

We specialise in the self-delivery of highway maintenance and improvement solutions to the highest standards of safety.



"We are excited to work collaboratively with clients to both ensure certainty in delivery and unlock new value using our experience, capability and freedom of thinking to do things better."

Andrew Sharp
Managing Director on behalf of Carnell's Senior Leadership Team

OUR MISSION

To raise the threshold of excellence in highway maintenance, and inspire our clients and suppliers to be as passionate about safety and social value as we are.

WE IMAGINEER
TOMORROW TODAY

OUR CAPABILITIES

Our specialist teams can deliver all our services as principal contractor.

Civil Engineering

Our regional teams will work collaboratively with you to deliver schemes encompassing drainage renewal & repair, earthworks and signage.

Technology & Lighting

We provide installation and maintenance services on roadside lighting and communications assets, including fault finding and incident response.

Safety Barrier & Fencing

We work in partnership with AmcoGiffen as AGC: a leading provider of vehicle restraint systems, bridge parapets, noise barriers and boundary fencing.

Filter Drain Recycling

SmartScan and our fleet of StoneMaster machines provide a sustainable, risk-based method to return roadside filter drains to their optimum condition.

Drainage Survey & Remediation

By taking an innovative approach to technical surveys and no-dig remediation, we help our clients effectively manage their drainage assets.

SafetyCam Solutions

Their conspicuous presence and vehicle detection systems improve driver behaviour, protecting communities and road workers from unsafe drivers.

Bridges & Structures

We provide specialist bridge maintenance through Route One, an established team with the capability, experience and equipment to deliver any size of project.

WHO WE ARE

With over three decades of experience, Carnell offer an extensive range of engineering services. Working day and night across the country, our 350+ strong team have a proven track record of working with our clients, supporting them in achieving their goals.

As part of Renew Holdings plc we draw on their strength, and the expertise of the ten other subsidiary companies. Together we support the operational demands of the UK's critical infrastructure networks.

OUR CAPABILITIES

- CIVIL ENGINEERING
- TECHNOLOGY & LIGHTING
- SAFETY BARRIER & FENCING

Our civils infrastructure competencies are based on the quality of our work and how our service is managed and delivered safely and efficiently. We look to get involved in projects at an early stage through ECI, so that we can use our technical skills to add value and improve both programme and cost certainty.

We self-deliver several framework contracts across the country for National Highways and Local Authorities. The experience we have as principal contractor is used to support clients in highways and other market sectors.



Paul Swann
Operations Director

- Chartered civil engineer and member of the ICE.
- Over 25 years working in highways for tier one contractors.
- A proven track record of delivering major infrastructure renewal and improvement projects on the strategic road network.
- Over four years with Carnell, building a trusted team.

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CIVIL ENGINEERING

1. Civils on the M5.
2. A14 embankment stabilisation.
3. A45 earthworks.



Our regional teams will work collaboratively with you to deliver schemes encompassing drainage renewal & repair, earthworks and signage.

At Carnell, we have the expertise to successfully deliver both new-build and maintenance schemes for civil infrastructure on the highways.

Our dedicated service teams will work with you, from planning and design through to commissioning and implementation.

The breadth of experience gained over the last three decades and a multi-skilled workforce ensure that we can successfully deliver any project, from footpath installation to an entire junction upgrade.

- // Project Management & Temporary Works
- // Drainage Renewal & Repair
- // Earthworks
- // Accommodation Works including Site Clearance
- // Signage
- // Footways & Kerbing



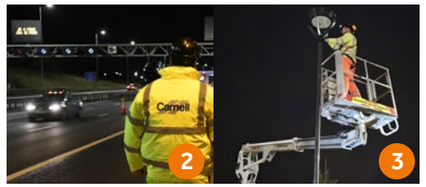
TECHNOLOGY & LIGHTING

1. A50 Stoke lighting scheme.
2. Nationwide NRTS contract.
3. Longcross Studio lighting.

We provide installation and maintenance services on roadside lighting and communications assets, including fault finding and incident response.

In addition to providing a full turn key service incorporating civils, cabling and commissioning, Carnell have a broad range of experience and are specialist providers of gantry installation, message sign construction and the associated cabinet sites and ducted systems on the strategic road network.

Carnell are also accredited with the highest safety and quality standards achieved through sector scheme 8 (HERS) accreditation.



- // Highway Communications
- // Road Lighting Renewal & Maintenance
- // Illuminated Signs
- // Traffic Signal & CCTV Installation
- // Incident Response
- // Fault Find & Fix



CAPABILITIES

SAFETY BARRIER & FENCING

1. A5 Mile Oak VRS
2. A595 Moresby.
3. A421 noise barrier.

We work in partnership with AmcoGiffen as AGC: a leading provider of vehicle restraint systems, bridge parapets, noise barriers and boundary fencing

Carnell have been principal contractor on several high-profile barrier schemes on the strategic road network over the last decade. More recently, AGC became Scheme Delivery Framework lot providers for road restraint systems in four of the six National Highways regions.

We have built the capacity and capabilities, while investing in specialist plant, to maintain the entire range of safety barrier and fencing. Our ISO 9001 certification includes NHSS 10B: Permanent Vehicle Restraint Systems (incorporating NHSS 2B & NHSS 5B).



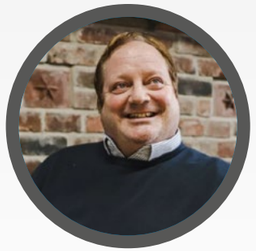
- // Vehicle Restraint Systems
- // Bridge Parapet
- // Noise Barrier
- // Boundary Fencing
- // Barrier Surveys
- // Specialist Plant

OUR CAPABILITIES

- FILTER DRAIN RECYCLING
- DRAINAGE SURVEY & REMEDIATION
- SAFETYCAM SOLUTIONS

Our drainage survey and remediation capabilities, and our roadworker safety solutions demonstrate how we continually look for better ways to approach challenges, for the benefit of our clients and road users.

The responsive nature of these operations means that our specialist teams can mobilise anywhere in the country at short-notice. By providing end-to-end asset management, and outputs which are 'right first-time', you can depend on us to deliver a quality service.



Rodney Robb
Operations Director

- Over 15 years working in highways for Carnell.
- An Armed Forces veteran, achieving the rank of Warrant Officer second class (WO2).
- An excellent record of delivering schemes on time and within budget, while maintaining high safety standards.
- Specialist in technical surveys and drainage remediation.

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FILTER DRAIN RECYCLING

1. StoneMaster on the A46.
2. SmartScan condition survey.
3. Only the waste is removed from site.

SmartScan and our fleet of StoneMaster machines provide a sustainable, risk-based method to return roadside filter drains to their optimum condition.

A market-first, recycling the aggregate contained in roadside filter drains in-situ, rather than removing it from site. StoneMaster significantly reduces the waste generated, quarried materials required and the associated vehicle movements.

Our specialist drainage services have evolved over two decades. High-tech condition surveys, rigorous quality processes and fleet of six StoneMaster machines means that we have a suite of innovative services that enable targeted interventions which deliver significant safety, customer, cost and carbon benefits.



- // Filter Drain Surveys
- // On Site Recycling
- // Filter Drain Stabilisation
- // Dig Out & Replace
- // Testing & Waste Management
- // End to End Asset Management



DRAINAGE SURVEY & REMEDIATION

1. M4 technical survey.
2. CCTV camera investigation.
3. A1 CiPP patch remediation.





By taking an innovative approach to technical surveys and no-dig remediation, we help our clients effectively manage their drainage assets.

Through investment into the latest technologies and development of our experienced in-house teams, Carnell provide the most reliable and complete technical surveys solution.

Our drainage survey & remediation capability reflects Carnell's strong commitment to innovation and process development. We work with our clients to develop optimum solutions such as our Find & Fix approach. By identifying the most critical defects and repairing them in the same roadspace, we reduce costs and the risk of further deterioration.

- // GPS Asset Inventory Surveys
- // CCTV Condition Surveys
- // Jetting / Pre-Cleansing
- // No-Dig Remediation
- // Technical Services Team
- // Chamber Laser Scanning



SAFETYCAM SOLUTIONS

1. Site speed monitoring.
2. TM incursion deterrent.
3. Diversion route observation.





Their conspicuous presence and vehicle detection systems improve driver behaviour, protecting communities and road workers from unsafe drivers.

Our fleet of mobile safety camera vans use police-approved vehicle detection systems to capture instances of dangerous driving, while providing a conspicuous visual deterrent and actively changing the way people drive through road works and on diversion routes.

On-board wi-fi means that data is uploaded to the cloud. Our trained SafetyCam operatives generate reports of traffic management incursions and speeding that can be viewed remotely by the client, for swift resolution and potential prosecution.

- // Traffic Management Incursion Capture
- // Site Speed Limit Compliance
- // Diversion Route Monitoring
- // Traffic Counts & Analysis
- // Site Security / SafetyHub
- // OverheadSafe Personal Hazard Alert System

OUR CAPABILITIES

BRIDGES & STRUCTURES

In April 2024, we bought Route One Infrastructure, a bridge and structures specialist with almost 20 years of experience. The acquisition increases our capabilities to include the maintenance of bridge expansion joints, waterproofing systems, bearings, concrete repairs and cathodic protection.

Based in Yorkshire, Route One have several framework contracts with National Highways in the 'Structures, Waterproofing & Expansion Joints' lots. In addition, we operate across the country in the capacity of a sub-contractor or principal contractor.



Gary Credland

Business Development Director

Gary gained a BEng Degree in Civil Engineering in 1997. He has worked in various businesses within the private sector gaining experience across all aspects of the business functions before founding Route One in 2005..

He oversees the bid and tender activities ensuring that we offer a competitive and first class service to our clients. Gary is also the key Account Manager for many of our clients, providing technical and commercial support throughout the project delivery stages.

gary@r1i.co.uk www.r1i.co.uk



1. Bridge deck waterproofing.
2. Elastomeric bearings.
3. M621 Asquith, Thermajoint BJ 200 ST.



We provide specialist bridge maintenance through Route One, an established team with the capability, experience and equipment to deliver any size of project.

We are authorised contractors of the world's leading expansion joints, structural bearings and bridge deck waterproofing systems. Through strategic partnerships with these specialist manufacturers, we are able to offer initial design and ECI support as well as providing innovative and cost saving solutions.

In addition to the core services, Route One Infrastructure have the expertise to manage full turn key services, offering bespoke solutions in all aspects of structures maintenance including concrete repairs, cathodic protection, structural coatings and temporary works.

- // Structural Waterproofing
- // Expansion Joints
- // Structural Bearings
- // Structural Coatings
- // Concrete Repairs
- // Temporary Works

OUR VALUES

THE WAY WE BEHAVE -
MAKES ALL THE DIFFERENCE

Passionate
We are passionate about the work we do. We are committed to delivering high performance through the continual development of our people and our processes.

Responsive
We respond quickly and efficiently to the needs of our customers, partners and colleagues and the unique demands of each task.

Innovative
We continually look for better ways to do things. We're not afraid of a challenge and we take the lead in proposing innovative and practical solutions.

Trustworthy
Our long-standing relationships with our customers, partners and colleagues are built on trust. We can be relied on to be honest and direct and do what we say we will do.

Respectful
We treat others as we would hope to be treated ourselves. We believe through respecting each other and embracing our differences we can have a stronger impact as a team.

OUR APPROACH

THE WAY WE WORK -
HELPS US TO LEAD THE WAY

BE SAFE



Be SAFE culture
Our high standards of health and safety are demonstrated by our 16 consecutive RoSPA Gold Awards. Our employees know that they have the backing of the directors to STOP WORK if they feel unsafe.

Employee wellbeing
Workforce support is ingrained through our management ethos and 'just culture'. Meanwhile we have an EAP, have trained almost 10% of our workforce as mental health first aiders and deliver several initiatives throughout the year that encourage people to Speak Out.

Best practice approach
In 2023 we were shortlisted by National Highways for 'Excellence in safety learning and culture' at their annual awards. This highlighted several initiatives which have driven continuous safety improvement and an increased safety maturity.

INVEST IN OUR PEOPLE



Local people resource
Our teams are based around several regional hubs of activity to minimise the need for travelling and staying away from home. This gives us flexibility and efficiency as well as cost, carbon and mental health benefits.

Development focused
In 2024/25 our employees averaged over 16 days of training. External training such as City & Guilds and NVQs accounted for over half of this, while the creation of learning pathways on the iHasco platform has delivered an improvement of soft skills across the workforce.

Engagement culture
Effective communication with our teams is important to make sure they are receiving key messages that help them work safe and considerately. We undertake several anonymous surveys a year to understand and improve our engagement.

BE SUSTAINABLE



Carbon conscious
Several of our innovations such as StoneMaster and EcoSite are designed to minimise carbon emissions.
Our Carbon Management Plan details the improvements we have made in GHG reduction. We also hold PAS 2080 Carbon Management in Infrastructure.

Understanding local needs
Our social value initiatives are based around research into community wants and needs, ensuring we use our particular skills to provide a legacy. `
We have SVQM Silver certification and in 2024 we spent over 2,500 hours in the community.

Responsible procurement
It doesn't matter how ethical we are if we use unscrupulous suppliers!
We've been awarded CIPS Corporate Ethics certification for our continuing commitment to responsible supplier management. In 2024 we spent £22m with SMEs, VCSEs and CICs.

DELIVER, LEARN, IMPROVE



Self-delivery model
In 2024, we self-delivered 84% of our work (compared to our 85% target).
We value our specialist supply chain and believe this gives us the optimum balance of quality, flexibility, efficiency and reliability.

Embedded quality
We have held ISO 9001 for over 20 years which includes several National Highways Sector Scheme approvals.
We routinely undertake Inspection Test Plans to ensure that schemes are delivered to the satisfaction of the client.

Work collaboratively
We always look to work collaboratively with the client, suppliers and other delivery partners.
We have held ISO44001 certification for Collaborative Business Relationships since 2017.

OUR INNOVATIONS

We continually look for better ways to do things. We're not afraid of a challenge and we take the lead in proposing innovative and practical solutions.

Scan to view our innovations timeline



SmartScan

Launched in 2012, SmartScan was developed to provide a quicker, safer and more cost-effective indication of filter drain condition.

Ground Probing Radar is utilised in a unique way to indicate the porosity of filter drains, and when combined with vacuum-extracted samples, and video of the surface gives a comprehensive condition assessment.

SmartScan is a rolling survey, allowing lengths of up to 40km to be surveyed in one shift; under the protection of an IPV instead of a static lane closure.

Unlike trial holes at regular intervals, SmartScan gives continuous data for the full length, is safer for the road worker and offers best value for the client.



StoneMaster

A market first in providing on-site refurbishment of roadside filter drains.

By recycling the filter media in-situ, only material not conforming to Type B specification is removed from site, whilst drains are left functioning fully.

Fewer HGV transfers, minimal import from quarries & loads to landfill ensure that the StoneMaster process is both an environmentally sustainable and cost-effective method of prolonging asset lifespan.

Filter drains operating at their optimum performance level effectively remove surface run-off and sub-base moisture, to ensure roads are safer and last longer.



SafetyCam

Road workers are continually exposed to hazards associated with traffic and movement of vehicles on site.

SafetyCam is a mobile road worker protection system that fuses image, video and Automatic Number Plate Recognition (ANPR) technology with state of the art processing and reporting techniques. It aims to improve the safety of road workers by improving driver behaviour in and around work sites.

SafetyCam utilises two camera systems – one to monitor and report on the speeds of passing site traffic and one to record beginning to end submissible footage of unauthorised vehicle incursions into road works. As well as hosting both specialist camera systems and on-board Wi-Fi capability, SafetyCam is a fully resourced and functional site welfare vehicle that is available for use by all.



EcoSite

Carnell are working with suppliers to decarbonise compounds and the plant used on schemes for National Highways.

This approach has seen us lead the industry in adopting best practices which reduce not only the carbon footprint, but also fuel costs and the effect of noise and air pollution on local communities.

In January 2022, we calculated that by using sustainable solutions such as HVO fuel, solar hybrid generators, solar tower lights and solar CCTV security cameras in one of our standard compounds, we would reduce CO2e emissions by 6,346kg.



Find & Fix

Find&Fix enables asset holders to quickly collect safety-critical drainage condition data and provide targeted risk-based interventions on their network.

We work in collaboration with our clients to deliver their optimum solution, using our unrivalled range of survey, remediation and GIS technology.

Carnell have designed several survey and remediation packages which deliver quick and cost-effective solutions to improve the functionality of network drainage assets performance and extend their lifespan.



CleverScan

CleverScan is an intelligent chamber laser (& video) scanning system which is used to record all drainage chamber details for a CS 551 compliant 'Chambers Defect and Geometric Survey by Laser Scanner'.

By reducing the need for confined-space entry into the chamber and manual data-entry, it is a safer, quicker and more accurate way to survey drainage chambers.



Dedicated and dependable

ISO 9001, 14001, 44001, 45001 & PAS 2080

Our Quality, Environmental, Collaborative Relationships and Health & Safety management systems are certified by BSI. ISO 9001 also includes NHSS 2A: Fencing // 8: Electrical Works // 10B: Road Restraints // 18: Landscaping.

RoSPA Order of Distinction

We are members of RoSPA and have achieved 16 consecutive RoSPA Gold Awards for Health & Safety, culminating in the Order of Distinction.

Social Value Quality Mark

The SVQM Silver award recognises our commitment to being a values-led business. We are building on our pledges and are on the way to Gold.

Constructionline

As a Gold Member, we have met pre-qualification requirements appropriate to public and private sector procurement.

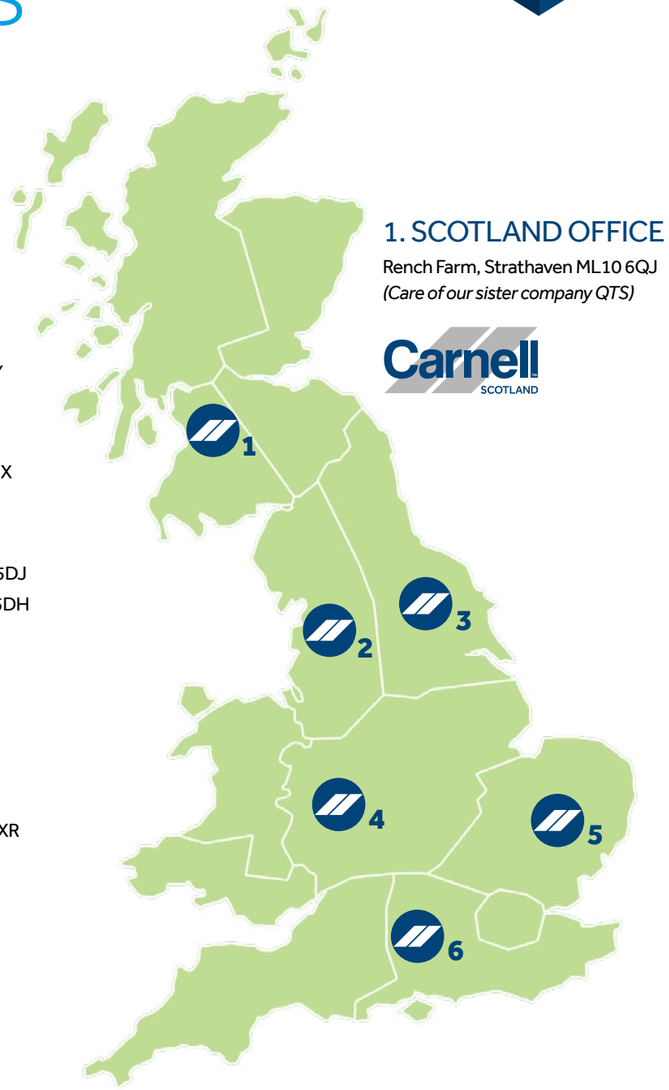
CIPS Corporate Ethics

We have been awarded Corporate Ethics certification from the Chartered Institute of Procurement & Supply for our continuing commitment to ethical sourcing and supplier management.

** As of May 2025.*

Our offices

Carnell has six main offices across the UK:



1. SCOTLAND OFFICE

Rench Farm, Strathaven ML10 6QJ
(Care of our sister company QTS)

2. NORTH WEST OFFICE

Berkeley Barn, Berkeley Drive, Cuerden, Lancashire, PR5 6BY

3. YORKS & NORTH EAST OFFICE

Unit 1, Innovation Square, Featherstone, Pontefract, WF7 6NX

4. MIDLANDS OFFICES

Gothic House, Market Place, Penkridge, Staffordshire, ST19 5DJ

Dene House, Market Street, Penkridge, Staffordshire, ST19 5DH

5. EAST OFFICE

Unit 1, The Wheelwrights, Lower Green, Higham, Bury St Edmunds, IP28 6NL

6. SOUTH

Crossway, Stephenson Rd, Houndmills, Basingstoke, RG21 6XR
(Care of our sister company AmcoGiffen)

Carnell

Route One Infrastructure
PART OF THE CARNELL GROUP

AGC The AmcoGiffen & Carnell Partnership



For more information please visit our website:

carnellgroup.co.uk

Follow us: @carnellhighways

Carnell™

We imagineer tomorrow today

Scan to read more on our website

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