

Hawkins

Leaders in forensic investigation



THE BUILT ENVIRONMENT

Providing forensic engineering, forensic architecture and expert witness services for incidents relating to all aspects of the built environment during its design, construction, operation and demolition.

www.hawkins.biz

Architecture & Building Defects | Civil & Structural Failures
Construction & Demolition Incidents | Falls from Height | Fire Engineering & Fire Spread
Flooding & Hydrology | Foundations, Piling & Subsidence | Highways/Railways
Noise & Acoustics | Tunnels & Bridges | Vibration Damage | Wall & Slope Stability
Water Ingress & Basements | Wind Damage



Hawkins, established in 1980, provides specialist forensic root cause analysis and expert witness services to legal, insurance and risk management professions. We also investigate incidents for contractors and consultants.

We have over 100 experts in the UK, Dubai, Hong Kong, and Singapore. All offices are staffed by highly experienced forensic scientists and engineers from a wide range of disciplines, including mechanical, electrical, civil, structural and highway engineering.

Our team of experts have construction industry experience in design consultancy and contracting, in both the UK and overseas. Using this knowledge and experience, combined with skills in forensic investigation, they are able to conduct investigations into a wide range of incidents and failures relating to the design, construction and use of the built environment.

“Clients come back to Hawkins because of our honesty and integrity. Our subject matter experts have sound technical knowledge and expertise, married with a real commercial awareness of what our clients need. Hawkins provides a rapid response, giving timely, accurate advice and communication of the evidence in a way our clients can act upon.”

Dr Andrew Prickett, Managing Director, Hawkins

Our built environment team can assist with incidents and problems relating to buildings, structures and construction. The team includes a core group of civil and structural engineers together with experts in architecture, geotechnical engineering, flooding & hydrology, fire engineering, and acoustics.

As with all Hawkins investigations, we excel in providing a rapid response and high quality reports to assist our clients in understanding the technical issues of a case and the cause of the incident or defect. Our reporting is flexible, ranging from preliminary appraisals to full CPR35 compliant reports to suit the client's needs.

In addition to investigating failures, we are often asked to review designs on a proactive basis, in order to prevent future problems. This provides our clients with confidence that their buildings or structures are sound.



Service Types



PRE-FAILURE RISK MANAGEMENT

Guidance on design, installation, and regulations to ensure safety, compliance, and risk reduction.



ROOT CAUSE ANALYSIS

Scientific investigation into all aspects of an incident to determine what happened, why and in what sequence.



EXPERT WITNESS SERVICES

Independent and impartial technical advice to assist Counsel during all aspects of litigation.



POST-FAILURE ADVICE

Consultancy advice to reduce, mitigate and prevent risks associated with similar events happening in the future.



MAJOR & COMPLEX LOSS

Global resources and multidisciplinary teams, armed with the knowledge, equipment and facilities to manage and investigate major and complex incidents.

We Investigate...

ARCHITECTURE & BUILDING DEFECTS

We investigate building defects to determine whether design or workmanship is the root cause. With experience in many sectors and across all RIBA stages from inception to occupation, we can provide advice tailored to your project. Typical investigations we would be involved with include claims relating to design co-ordination, compliance with Building Regulations and industry standards, and performance of architectural services.

CIVIL & STRUCTURAL FAILURES

We gather evidence at the scene and carry out structural analysis and design reviews to investigate the cause of collapses. Our cases range from large-scale, high-profile building collapses to partial roof collapses. These typically occur during construction or demolition or as a result of snow loading.

CONSTRUCTION & DEMOLITION INCIDENTS

Many of our experts have a background in construction and can advise on methods and procedures relating to personal injury cases and failures of temporary works. We often review and comment on the suitability of method statements and risk assessments, as well as compare them to the actual work undertaken.



FALLS FROM HEIGHT

Whether the fall was from a roof, a window or a staircase, we investigate the cause of the fall and provide advice on whether the relevant parts of the building were compliant with safety guidance and Building Regulations.

FIRE ENGINEERING & FIRE SPREAD

Hawkins has the necessary competencies to advise on fire engineering matters including compliance with fire safety legislation and guidance, investigation of fire spread and building fire safety design, construction and management.

FLOODING & HYDROLOGY

We use hydrology expertise in cases involving flooding from surface water, groundwater, rivers and artificial sources, such as sewers and water mains. We assess the rainfall or flood event and identify the contribution of other causative factors, like drainage maintenance and condition.

FOUNDATIONS, PILING & SUBSIDENCE

Property damage caused by ground movement or foundation failure can be a result of poor design or construction. Our expertise in geotechnical engineering, combined with our investigative skills, enables us to undertake a full assessment and determine the cause.

HIGHWAYS/RAILWAYS

Whether the case involves a road traffic accident, potholes or flooding, we have the experience to advise on all highway matters relating to both design and maintenance. In addition, we have investigated railway incidents including derailments, unintended runaways and accidents at level crossings.

NOISE & ACOUSTICS

Noise and acoustics are important considerations in designing buildings. Where design consultation is required, we are able to work with the designer from the conceptual stage through to post-completion testing, enabling us to assist with defect diagnosis and dispute resolution.

TUNNELS & BRIDGES

We have carried out failure investigations for a number of major infrastructure projects around the world, including in the United Kingdom, Hong Kong and Qatar.

VIBRATION DAMAGE

Construction activity and traffic are two common sources of vibration that are often blamed for causing cracking or movement in buildings. We can monitor the vibration and inspect the damage to determine whether the vibration is likely to be the cause.



WALL & SLOPE STABILITY

Investigations into retaining wall and freestanding wall incidents often show that the collapse occurred due to inappropriate construction practices or poor design. Many cases have involved personal injuries. We have the expertise and specialist software to carry out detailed slope stability failure analysis, including reclamation issues.

WATER INGRESS & BASEMENTS

We carry out damp surveys and investigate flooding within buildings, including sewer and drainage problems. Typical building defects include failure of construction materials and poor installation, particularly with regard to basement waterproofing and roof construction.

WIND DAMAGE

We conduct a scene examination, design review and meteorological assessment to determine whether the damage was caused by extreme weather conditions or by structural weaknesses. With most wind related damage, typically involving roofs and cladding, we show that there were underlying construction or design defects that caused the failure.



Hawkins' Expertise

We have over 100 experts located in Dubai, Hong Kong, Singapore and across the UK. Our expertise covers a vast number of specialist areas including:

ACOUSTICS & AUDIOLOGY

Our experts assess and advise on acoustic design in the planning stages, and provide mitigation strategies post-construction in the event of a noise dispute.

ARCHITECTURE

We investigate building defects to determine whether design or workmanship is the root cause. With experience in many sectors and across all work stages from inception to occupation, we can provide advice tailored to your project.

THE BUILT ENVIRONMENT

Our civil, structural, geotechnical and fire engineers provide expert investigation of defects and failures in the built environment, including water ingress, structural collapses, storm damage and personal injuries, especially on construction sites.

CHEMISTRY & CHEMICAL ENGINEERING

Hawkins' team of highly qualified and experienced chemists and chemical engineers provide expert opinion on problems associated with chemical processes in a wide variety of industries, including post-incident investigation, goods handling, environmental concerns, hazardous substances and personal injury.

CONTAMINATION

Our team of highly qualified and experienced chemists can investigate a wide range of contamination and spillage incidents.

DIGITAL FORENSICS

Hawkins' experts collect, authenticate and preserve original evidence. We discover the source of a digital event or attack, how it occurred, and what information may have been lost or compromised.

ELECTRICAL

We investigate incidents including failures and injury involving most types of electrical equipment, from micro-electronics and domestic electrical appliances through to high voltage generation and distribution.

ESCAPE OF WATER, GAS, OIL AND OTHER FLUIDS

We can provide system failure analyses for incidents involving all fluids and gases in industrial and domestic settings with onsite and laboratory investigations.

FIRE & EXPLOSIONS

As a leader in forensic fire investigation, Hawkins has the necessary knowledge and experience to investigate the full scale of losses globally, and advise on recovery, liability and risk management.

FIRE ENGINEERING

Hawkins has the necessary competencies to advise on fire engineering matters including compliance with fire safety legislation and guidance, investigation of fire spread and building fire safety design, construction and management.

FRAUD

We compare physical evidence with witness accounts to establish if the evidence is consistent with a suggested sequence of events or actions. This applies to both small and major losses.

HYDROLOGY

Our expert hydrologists and engineers have years of experience identifying the cause(s) of complex flooding incidents.

MARINE INCIDENTS

We assist on a wide range of incidents including agricultural cargoes, liquefaction, fires, explosions, chemical contamination and ship management.

MATERIALS

From medical implants to satellites, our experts are on hand to establish the cause of failure of manufactured items.

MECHANICAL

Losses often involve the failure of multi-component mechanical systems. We have the knowledge and experience to identify the cause, no matter how complex.

PERSONAL INJURY

We provide independent and expert assistance with all types of personal injury, including specialised and complex areas like slips, trips and falls, and noise-induced hearing loss.

PLANT PATHOLOGY

At Hawkins, plant pathology encompasses agricultural, horticultural, forestry, marine and contamination claims. Our experts are experienced in investigating the causes of plant diseases, crop failures and spoilage of fresh produce and agricultural cargoes.

POWER & ENERGY

We investigate all aspects of failures relating to the generation, transmission and distribution of power and energy, including turbine failures, over-voltage and poor design and maintenance. Our team is highly experienced in a wide range of power generation equipment from traditional thermal and nuclear power plants through to wind, hydro and solar generation as well as emerging technologies such as battery and flywheel installations. We can also provide pre-failure risk assessments for your power generation equipment.

PROCESSES

Our engineers help identify the cause of a problem and advise on liability and future prevention.

PRODUCT LIABILITY

We are experts in the field of product liability and often deal directly with UK Trading Standards offices or similar statutory bodies.

RAILWAYS

We have investigated incidents including derailments, unintended runaways and accidents at level crossings.

ROAD TRAFFIC COLLISIONS

Our investigators identify all contributory factors and analyse issues such as vehicle speed, visibility, human factors, CCTV, road positioning, weather, vehicle faults and damage assessments.

VEHICLE, PLANT & MACHINERY

We investigate fires and failures involving all types of vehicles and plant. We routinely review designs and maintenance practices to provide recommendations to our clients.



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