



IS YOUR ROOF FIT FOR THE FUTURE?

IKO'S ULTIMATE GUIDE TO ROOFING FOR EDUCATION BUILDINGS



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RAISING ROOFING STANDARDS ACROSS THE BOARD

CONTENTS

- 03** Raising roofing standards across the board
- 04** Roofing risks: outlining the main hazards
- 06** Think prevention, not problem
- 08** Top tips for choosing the right roofing partner
- 12** The golden rules of guarantees
- 14** Finding your way through funding
- 16** Selecting the right roofing solution
- 18** IKO in action: case studies
- 20** Protecting what matters
- 22** IKO in the UK

Every education setting - whether it be schools, academies, colleges or universities - has a responsibility to provide a safe and comfortable space where students can learn, play and develop. Increasingly, that responsibility extends to reducing the environmental impact of educational buildings to protect the planet for future generations.

The Department for Education (DfE) has set out a vision that, by 2030, the UK will be the world-leading education sector in sustainability and climate change. With schools and universities representing 36% of total UK public sector building emissions and energy spend in schools believed to far exceed £630m per annum (DfE), improving the condition of education buildings and adapting them to be resilient to climate change and reduce emissions is a critical challenge.

Whether maintaining functional performance or addressing environmental concern is the priority, upgrading roofs is a vital step to providing structurally-sound – and more sustainable – school buildings that will stand the test of time. Recently, the DfE allocated £2.5bn to refurbishment funding to ensure school buildings are fit for the future and additional funding is available through the Public Sector Decarbonisation Scheme to improve energy efficiency and cut emissions. So now is the perfect time to take stock and assess your roofing needs, to protect the integrity of education buildings and ensure your sustainability targets are on track.

As a responsible UK manufacturer of roofing, waterproofing and insulation products, IKO is the trusted supply partner to the education sector. Whatever the size or scope, we have the knowledge, technical expertise and guarantee-backed solutions to help future-proof education sector roofs for generations to come.

As part of our commitment to upholding the highest standards, we have created this guide to provide you with all the information you need to make informed decisions about your education building roofs – whether it's new build or refurbishing existing roofs. From outlining the dangers of a failing roof to choosing the right partner to meet your sustainability goals, we can help you protect what matters.



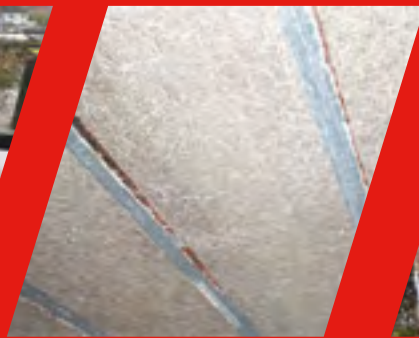
ROOFING ISSUES: IDENTIFYING THE MAIN HAZARDS

As with any structure, if flat roofs are not well-maintained or failing, they present a danger for those who may need to access the roof or occupants of the building. For education buildings, this can have major implications for staff, students and maintenance personnel. But how do you know if your roof needs refurbishment?

A roof survey – carried out by a professional – can help to identify issues you need to be aware of on your existing roof. Here, we outline some of the key reasons for premature failure commonly identified by roof inspectors.



Ponding or standing water



Fragile deck



Damaged or fragile roof lights



Dampness or mould on ceilings and walls



Blocked drains and gutters

1 Unstable and ageing roofing material

When a roof is approaching or past the end of its serviceable life, ageing material can create significant issues when it comes to the roof's structural integrity and, in some instances, lead to complete failure.

Plus, if the school was built before 2000, there could be a risk that the roofing structure contains asbestos. Asbestos can be dangerous to human health if the fibres are disturbed and become airborne. It is therefore imperative to enlist trained professionals to conduct a risk-assessed survey and complete refurbishment works.

2 Roof light dangers

Many flat roof designs have roof lights incorporated into them, allowing for more natural light into the building. Water ingress can signal that a roof light is failing. If not protected and maintained correctly, anyone accessing the roof risks falling through a dilapidated roof light, which could prove fatal.

3 Loose material and foreign objects

Poor installation or deterioration over time may produce loose materials that could fall from a flat roof and cause injury to staff, pupils or other site visitors. Foreign objects left on a roof may cause similar issues.

4 Interior walls and ceilings

There are a number of tell-tale signs that a roof may be unsafe or failing, without stepping foot up a ladder. Things you may notice on interior and exterior walls and ceilings include:

- Dampness or mould (usually brown in colour)
- Chipped or discoloured paint
- Blocked drains and gutters
- Settlement cracks
- Stained, displaced flashing or drainage facilities
- White/salt coating or surfacing (efflorescences)

5 Inadequate or no edge protection

On a flat roof, the risk of a fall for anyone who needs to access it is heightened by inadequate or no edge protection, such as railings.

6 Trip hazards

Wiring, aerials, vents and uneven roof surfaces can all be classed as trip hazards on a flat roof, which could result in personal injury or damage to the roofing structure or roofing accessories.

7 Poor or unsecure access points

Any access point should be well maintained and protected to avoid it being used by unauthorised personnel. Unsecure access can create a dangerous situation and increase the potential of someone becoming trapped or damaging the roofing structure, unbeknownst to those who maintain the school.

Recent concerns over the use of **Reinforced Autoclaved Aerated Concrete (RAAC)** and **Stramit** in school roofs are worrying examples of the risk of using cheaper construction materials. Widely used in the post-war era up until the 1980s, RAAC and Stramit are now well past their natural lifespans, meaning buildings using these materials could lose their structural capacity, putting pupils and staff at risk. **Determining the safety of existing roofs requires expert and detailed inspection to establish the required course of action.** The widely publicised issues around RAAC and Stramit demonstrate the importance of longer-term considerations when carrying out roofing projects and the need to future-proof buildings, as well as proactive maintenance.

THINK PREVENTION, NOT PROBLEM

When it comes to roofing maintenance, there are two approaches.

PROACTIVE

Assess your roof's condition through a professional survey



Identify potential problems early through a detailed report



Find the right partner and solution



Schedule maintenance/installation



This can lead to:

- ✓ Long-term savings
- ✓ Uninterrupted teaching time
- ✓ Safeguarding of pupils and assets
 - ✓ Lower carbon footprint
 - ✓ Improved energy efficiency

REACTIVE

Wait for a problem to manifest



Encounter leaks or complete failure



This can lead to:

- ✗ Classroom closures
- ✗ Disruption to lessons
- ✗ Relocation of pupils and staff
 - ✗ Costly repairs
 - ✗ Poor energy efficiency

Rising damp, flaking render and cracked walls are structural issues that can be easily identified and quickly rectified – but roofing problems are more difficult to anticipate. There are a number of tell-tale signs that indicate an issue to roofing experts, from warped boards, cracks, chips and condensation to deck depressions, vegetation growth and standing water. Spotting them early can save you critical time, money and stress.



FREE IKO ROOFING CONDITION SURVEY

Taking a proactive approach to roof refurbishment can ensure an education building roof is fit for the future, significantly more efficient and help avoid unexpected expensive and disruptive remedial works down the line.

In partnership with specialist building surveyors, who have vast experience of working with the education sector and the Educational Funding Agency (EFA) system, IKO can advise on how to maintain your building's waterproofing integrity, whilst improving thermal and energy efficiency. We can also make recommendations on complementary solutions or conforming to future building regulations, such as the installation of photovoltaic (PV) systems or improving thermal efficiency with the correct insulation.

Scan this QR code or visit



ikogroup.co.uk/business-sectors/education/

for your FREE, no obligation roofing condition survey.

TOP TIPS

FOR CHOOSING THE RIGHT ROOFING PARTNER

When it comes to choosing the right roofing partner for your project, be it new build or refurbishment, it is important to find providers that can deliver on your objectives, align with your values and share in your long-term vision.

Here, we outline the key considerations when seeking a roofing partner and how IKO can help.



HEALTH AND SAFETY

Safeguarding all students, staff and contractors from the potential dangers that may occur on a construction site should be the number one priority during any project. Look for a contractor that puts health and safety at the heart of operations, with a robust risk management process, clear commitment to compliance and proof of HSE accreditation.

At IKO, we uphold the highest of health and safety standards, which includes adhering to a robust employee health and safety policy, operating a noise plan, conducting COSHH risk assessment and First Aid training and setting injury-free targets. We expect the same diligence from all of our partners, including our contractor network, which is why we only work with trusted contractors who reflect our company values and principles.



CONSULTATION

Every establishment will have its own unique set of requirements and goals, but the overarching objective is to achieve maximum longevity with minimal environmental impact, within budgetary constraints. Choosing a partner that can not only offer the right product specification but also provide tailored solutions, technical guidance and full transparency when it comes to costs and sustainability helps to ensure you can make your budget go further in the short term and protect your building for the future.



SURVEY

A thorough analysis of the building's waterproofing envelope should be provided, detailing recommendations for repairs and replacements. To help identify any roofing or waterproofing issues, IKO's free-of-charge roof report includes a full expert appraisal of the current thermal performance of the roof and outlines any defects that require attention.



DESIGN

Any design should be bespoke, tailored specifically for individual roofing requirements and in line with regulations. IKO is a member of leading organisations in the roofing industry, including the National Federation Of Roofing Contractors (NFRC), the Single Ply Roofing Association (SPRA), the Liquid Roofing and Waterproofing Association (LRWA) and the Mastic Asphalt Council (MAC). This means that we can ensure our designs and specifications are always up-to-date and compliant with building regulations, including environmental legislation. IKO's agile approach also means that we can adapt to any changes once the project gets underway, be that supporting with on-site monitoring to deliver the highest standards, adapting the scope of work during the installation or any last-minute design changes, if required.



SOLUTION

Always consider the quality of materials and the contractor network a manufacturer can provide. Over a century of UK manufacturing experience – combined with IKO’s reliable stock and responsive national delivery network – has earned us a reputation as a trusted supply partner for the education sector. With the most comprehensive range of systems and complementary solutions on the market, you can get everything you need for your project under one ‘roof’.

Furthermore, to support our customers in meeting their sustainability targets, our R&D and product development teams are continuing to build our innovation pipeline of environmentally-friendly, sustainably-sourced products.



INSTALLATION

Make sure the project is installed by approved contractors only, who have experience of roofing systems in an education environment. A clearly articulated schedule of work should always be generated to minimise disruption during term time, ensuring student and staff safety and efficient project management.

All our systems are installed by IKO-approved and experienced contractors who must adhere to our strict specification requirements to be covered by our comprehensive single point guarantees.



INSPECTIONS

A pipeline of site visits should be planned and regular inspections scheduled by IKO technical engineers before, during and after the installation.

At IKO, we work in close collaboration with both contractors and clients throughout the project. Our team of technical engineers conduct regular on-site visits to check that works are being carried out according to specification requirements and provide technical support and guidance, where needed. This helps to ensure that IKO’s high standards are maintained, project deadlines are met and clients are suitably satisfied.



COMMITMENT TO ESG AND SUSTAINABILITY

IKO PLC’s ESG reporting underlines our ongoing commitment to championing transparency, accountability and continuous improvement.

Guided by the frameworks of the Global Reporting Initiative (GRI) and the International Sustainability Standards Board (ISSB), our aim is to present a clear, comprehensive view of our sustainability performance to ensure our stakeholders are kept up-to-date with IKO’s progress and challenges on its transition to a low carbon future.

We recognise the profound impact of climate change and with global temperatures continuing to rise, the urgency to act has never been greater. As a leader in our industry, we acknowledge our responsibility to not only mitigate our environmental footprint but to be a force for positive change in the face of the ensuing climate crisis.

We are steadfast in our efforts to decrease carbon emissions and improve efficiency throughout our operations to better manage climate-related risks.



GUARANTEE

Finally, it is important not to overlook the value of guarantees. As longevity is one of our values, our systems come with IKO single-point guarantees of up to 30 years. This gives our customers the peace of mind they need for the duration of a project and beyond, while demonstrating our commitment to the future performance of our products and the buildings they are designed to protect.



THE GOLDEN RULES OF GUARANTEES

When it comes to structural work, guarantees are essential. But they don't all offer the same cover. Before entering into an agreement with a contractor or manufacturer, it is imperative to establish what is covered by the guarantee – and identify where potential gaps may be.



An initial quote should detail:

- The location and surface area of each roof
- Core sample testing and reasons for waterproofing failure
- Proposals for overcoming faults and failure within the roofing structure
- Proposed working schedule and completion date(s)
- Full details of all materials and application methods to be used
- Proposed guarantees provided
- Health and safety precautions
- Any additional specification to be considered
- Quote validation period



Questions to ask:

What will the guarantee cover?

- *Materials* - What materials are covered?
- *Workmanship* - Can any contractor be involved in the project or do they have to be approved?
- *Length* - How long will the guarantee last for?
- *Caveats* - Is there anything specific that may null and void the guarantee?
- *Quality control* - Who has final project sign off and decides if a guarantee will be issued?
- *Experience* - What checks are in place to verify contractor experience and who will inspect the work?



What credentials have been checked?

- Is the contractor(s) part of The National Federation of Roofing Contractors (NFRC)?
- Have DBS (Disclosure and Barring Service) checks been carried out?



THE IKO SOLUTION

As roofing refurbishment and repairs are often large-scale investments, robust, comprehensive guarantees are a must, not a nice-to-have. IKO's single point guarantees are our most popular guarantee as they offer complete cover, including;

- ✓ Workmanship defects
- ✓ Product quality
- ✓ Waterproofing design responsibility

IKO underwrites its own guarantees, which demonstrates our confidence in the longevity, durability and integrity of our systems. Stringent manufacturing processes help to reduce the risk of defect and our detailed inspections ensure the systems are installed correctly and the chance of issues arising are minimal.

As well as meeting the criteria for BES 6001 (Responsible Sourcing Standard), we have achieved the following accreditations, so you can trust that our products and processes are socially and environmentally responsible:

- ISO 9001 - Quality Management Assurance Scheme
- ISO 14001 - Environmental Management Standard
- ISO 45001 - Occupational Health and Safety



IKO IN ACTION

CASE STUDIES

STOCKPORT SCHOOL

Fulwood Roofing Services – in collaboration with IKO and David Trowler Associates – undertook a major refurbishment of the school’s roof, which involved the re-roofing of a 2,200m² area.

Stockport School is a prestigious landmark in the local area so every detail of the finish needed to be perfect to ensure that the new roof upheld the school’s beautiful, traditional aesthetic.

Challenges

Due to the shape and uniqueness of each roof, the project involved 23 individual tapered insulation. The insulation was saturated throughout and contained several different deck types that required exposure and removal in some instances. Precise co-ordination was needed to manage timings, while also minimising disruption to staff and pupils. Careful co-ordination was put in place on delivery dates so that materials could be offloaded, escorted through the brick archways leading into the courtyard, and on to the roof areas in question.

Innovative approach

The IKO ULTRA Prevent 25 reinforced bituminous membrane system was selected as the main solution for the flat roofing areas. To minimise disruption to pupils and staff, areas that required decks to be stripped were completed and re-laid over weekends and evenings. During the day, the team worked diligently to ensure there were no leaks into classrooms, corridors or study areas to limit health and safety risks. Skilled workmanship, combined with support from IKO and flexible, regular communication between all parties, meant that the project could be completed ahead of schedule and in line with IKO’s single point guarantee. This also saved tens of thousands of pounds which the school could re-invest back into the facilities for the benefit of the pupils and their education.

STOCKPORT SCHOOL,
MANCHESTER

DIXONS CROXTETH ACADEMY

Dixons Academies Trust is a well-established multi-academy trust that aims to challenge educational and social disadvantages in Yorkshire and the North West. Alpha Roofing Systems was brought in to refurbish two roof areas totalling 508m² at Dixons Croxteth Academy in Liverpool after the existing waterproofing failed.

Challenges

After stripping back the aged and failed single ply system, Alpha identified a water-saturated bituminous roof beneath, which also overlaid the original asphalt waterproofing.

The excess weight imposed on the roof from the multiple, heavily saturated waterproofing systems led to cracking and depressions in the deck, as well as rusting of reinforcement within the structure. This meant that, before installation work could begin, the top two waterproofing layers had to be removed to expose the original asphalt. What’s more, this work had to be undertaken both during term time and a period of heavy rainfall.

Innovative approach

To adhere to DfE requirements, a 30-year durability statement was necessary, so the long-lasting, durable IKO ULTRA Prevent 25 waterproofing system was ideal.

After stripping the roof back to the asphalt waterproofing, a large expansion joint was found near the clerestory window. Tapered designs were subsequently adjusted to accommodate. 30 tonnes of waste material – primarily due to the uplift of the previous failed waterproofing systems – also had to be removed from the roof over the course of a week.

Furthermore, complex design variables meant that Alpha could not fully determine the existing roof falls until the roof had been sufficiently exposed. Working closely with the IKO technical team, design information and solutions were identified to keep the project on track and it was completed with a zero incident/accident rate and excellent feedback from the client.

DIXONS CROXTETH
ACADEMY, LIVERPOOL

PROTECTING WHAT MATTERS

At IKO, we're committed to effecting positive change in the education sector and limiting the impact of our actions, be that preventing disruption to teaching or reducing the carbon footprint of projects. For example, we can help protect the safety of staff and pupils and ensure schools remain a stable space for learning by scheduling visits, deliveries and works outside of active school hours. Furthermore, our shorter delivery journeys to site not only result in quicker lead times but a reduction in CO₂ emissions from transportation, benefitting the school, the local community and the environment.

As a responsible roofing manufacturer, we have introduced a range of initiatives to work towards achieving our ESG goals, from establishing our ambitious science-based targets to mental health support and sustainable manufacturing processes – and our efforts extend beyond our employees. Whether it's the people who live in the communities around our manufacturing sites, or those who work, live or learn under our roofing and waterproofing solutions, we aim to protect what matters to them most and create a positive legacy.



APPRENTICESHIPS

Nurturing future talent is essential to maintaining the lifeblood of manufacturing and construction and we have a dedicated apprenticeship scheme to welcome new starters into the industry. We have 10 live apprenticeships currently in engineering, production and business development and six apprenticeships have been completed in the past two years.



WORK EXPERIENCE

We believe that real-life work experience can be a major advantage when it comes to looking for full time employment. As such, we provide opportunities for young people to join the IKO team on a temporary basis to develop their professional skills with 'on-the-job' learning.



TRAINING CENTRES

As part of our commitment to supporting young people starting careers in construction, we regularly donate products and materials to colleges across the UK.



WIGAN YOUTH ZONE

IKO is proud to sponsor Wigan Youth Zone, which is one of the largest youth zones in Europe. Our staff also regularly attend open days and events at the centre, educating young members about the manufacturing and construction industries.



SUPPLY CHAIN SUSTAINABILITY SCHOOL

As an official partner of the Supply Chain Sustainability School, IKO works closely with industry leaders to inspire and advise on more environmentally-conscious operations in the construction industry.

IKO IN THE UK

A champion of UK manufacturing, underpinned by 140 years' experience, we're dedicated to driving positive change to protect what matters to educational institutions.

Our strategically-located manufacturing plants and extensive support network of building contractors and distributors make us best placed to offer service that is reliable, responsive and environmentally-responsible. Our position as a single, full system manufacturer means that we have the capabilities and agility to flex to unique needs at every stage of the project, from specification right through to the installation.

Furthermore, our focus on sustainable operations and exceeding decarbonisation requirements means that we can offer smart solutions to help reduce the carbon footprint of roofing projects and ensure your school is more energy efficient, climate resilient and fit for the future.

Whatever the needs and goals of your school may be, rest assured that we have the knowledge, roofing expertise and high-performance products to see that the project not only meets the highest of standards but also stands the test of time.

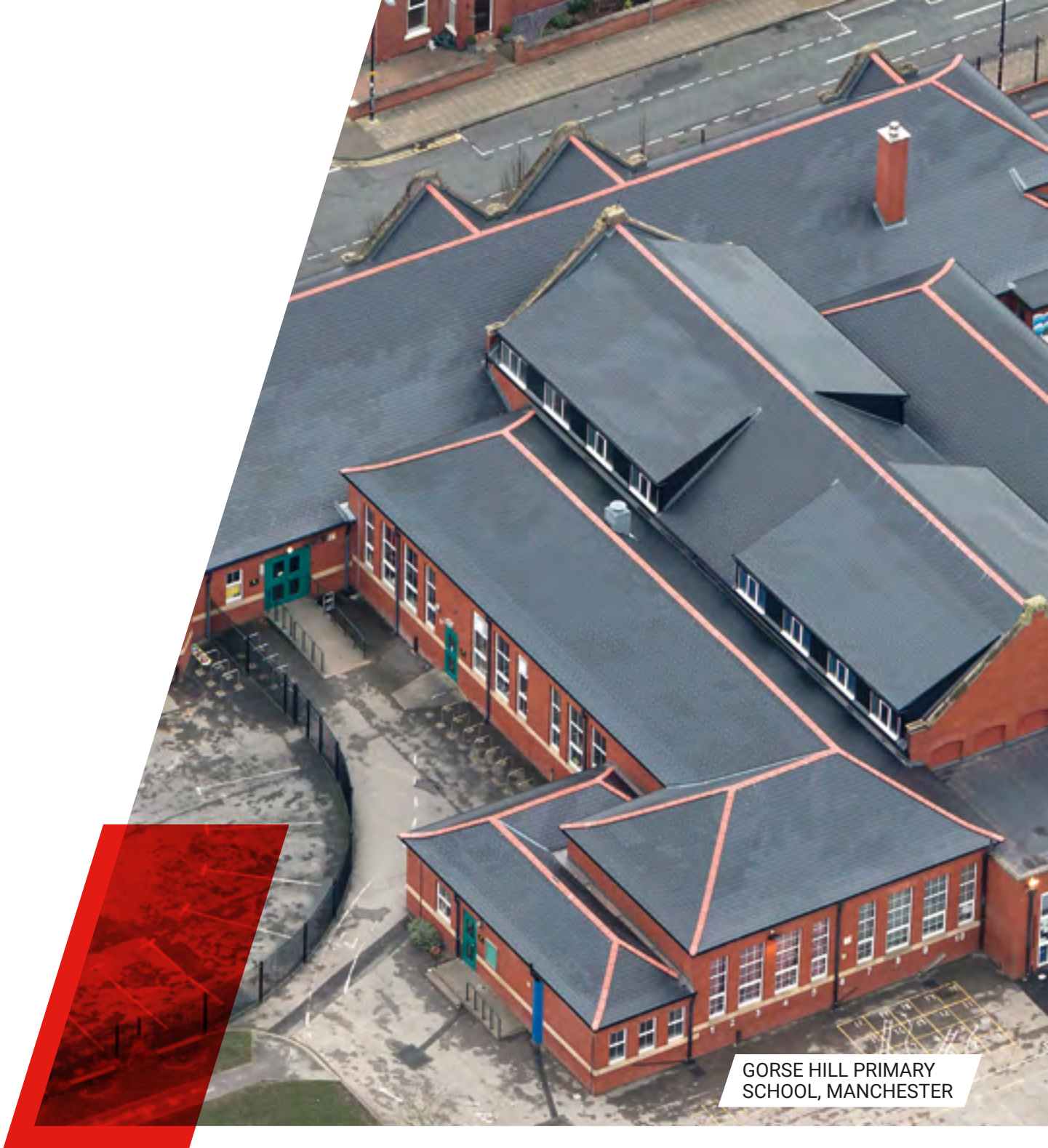


Find out how we can help your education building reach new heights by scanning the QR code or visiting



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