



**Hutton + Rostron**  
Environmental Investigations Limited

remedial detailing

# Remedial detailing for compliance and sustainability

## + Protecting the value of period properties

Over 20% of the United Kingdom's housing stock was constructed before 1900 and around 80% of today's homes will still be occupied in 2050. Increased awareness of environmental issues and rising fuel prices have made building increasingly concerned about energy efficiency and the need to respond to government initiatives and legislation.

The introduction of Energy Performance Certificates for residential property and their impact on capital values have prompted many owners to make changes to their properties, such as roof, wall and floor insulation, draught-proofing and secondary glazing. Draught-proofing and the reduction in air movement that generally go hand-in-hand with measures to reduce heat loss can create the conditions for increased condensation, fungal growth and timber decay in buildings that have previously been free from such problems

## + Building regulations 'Part L1'

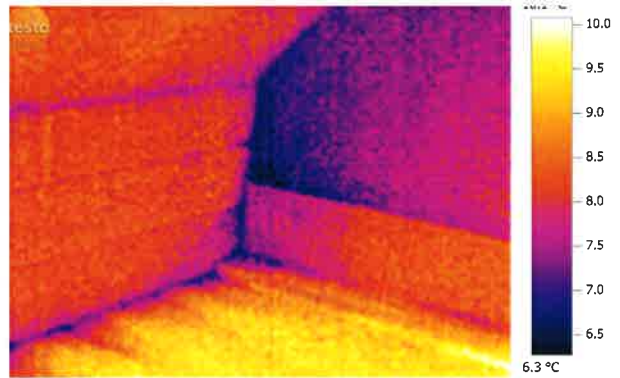
Part L1 of the UK Building Regulations is concerned with the conservation of fuel and power in residential buildings. In some circumstances local authorities can demand improvements to building energy performance when existing properties are refurbished or altered. Any such measures should be considered very carefully if problems caused by increased humidity and inadequate ventilation are to be avoided. Further, the use of modern materials and techniques in the refurbishment and alteration of period buildings can sometimes create problems which can be difficult to diagnose and cure without causing extensive damage to existing structures and historically important features



remedial detailing

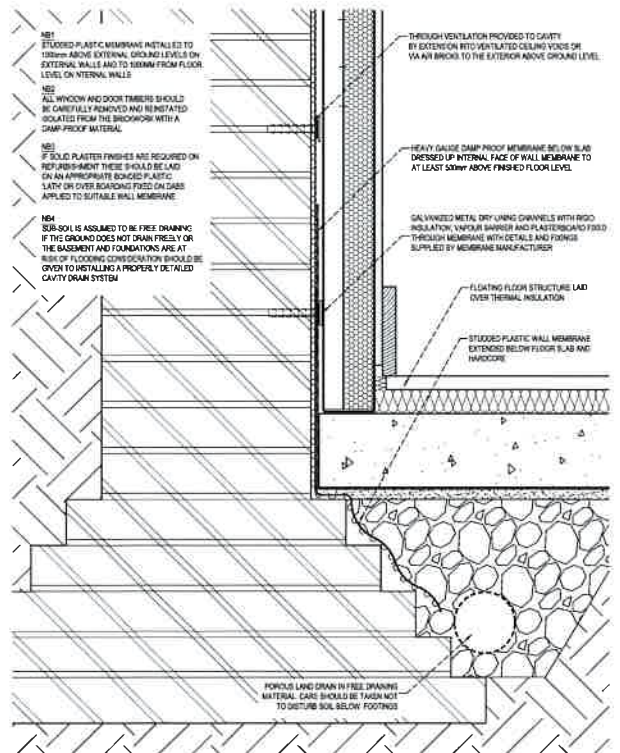
### + Control of moisture

A detailed understanding of changes in moisture distribution and air flow within a building is essential if unnecessary and destructive 'opening up' work and the use of environmentally unsustainable and short term chemical based treatments are to be avoided. H+R believe that this can be achieved through a scientific approach using data obtained by a variety of means, including micro-core sampling and analysis of materials, optical borescope or fibre optic camera inspection and digital monitoring of temperature, humidity and dew-point. Computer analysis of thermographic images, increasingly used to assess heat loss from buildings, can also serve to identify areas where low temperature, restricted ventilation and high humidity combine to increase the risk of moisture accumulation that can lead to damage and decay



### + Remedial detailing

Only when a building is fully and 'holistically' understood can appropriate cost-effective and 'fail safe' remedial details be developed, in negotiation with local authority Planning, Building Control and Conservation agencies. This approach is also highly effective for the analysis and correction of failures in new construction or in previous remedial work, such as exterior rendering or basement waterproofing systems



**H+R** Ventilated Dry Lining for Basement Walls  
Solid Floor (new) with land drain  
Section - Nov 2010 - Indicative Only - Not for Construction  
NOT TO SCALE  
**SD-73A**

Typical remedial detail, for protection of decorative timbers from decay

## Remedial detailing

H+R can provide a non-destructive testing and assessment service aimed at analysing thermal performance and moisture distribution in period properties to provide recommendations for cost effective and sustainable, long term remedial measures. Remedial advice and specifications can also be provided to address defects resulting from poor detailing or workmanship in new construction or refurbishment works