Climate emergency for residential surveyors – what does it mean in practice?

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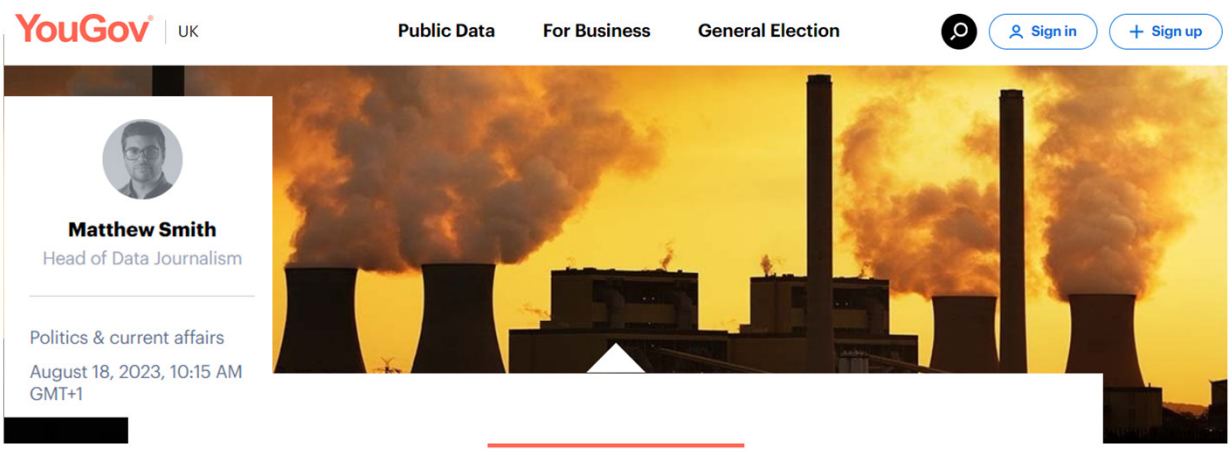
2024



To what extent do Britons think human activity is responsible for climate change?

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Human activity and climate change

Most people think humanity is 'entirely or almost entirely' responsible, or responsible for a 'large majority' of the change

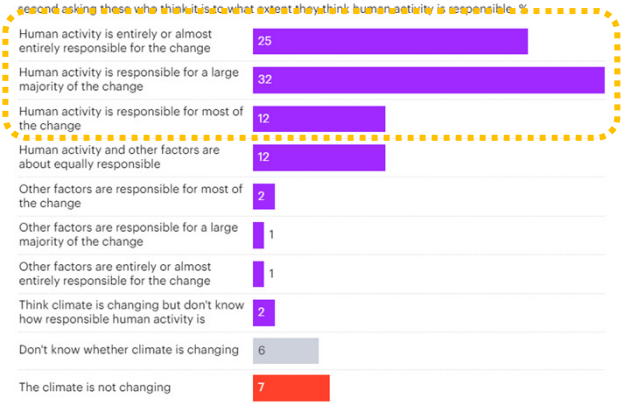
Previous YouGov questions on belief in the existence of climate change have not established in much detail the *extent* to which people think humanity is responsible. Our website tracker question only asks whether or not people think humanity is responsible at all (alongside saying it doesn't exist in the first place), while a 2019 international YouGov study allowed for respondents to distinguish between humanity being "mainly", "partly" and "not at all" responsible.

Now a new YouGov survey looks at this attitude in a greater level of granularity.

Asked first whether or not they think the climate is changing, 87% of Britons say they believe it is. Only 7% say it is not, a slightly higher rate than we get with the compound question on the website tracker (generally 2-4%). A further 6% are unsure, a lower rate than the website tracker tends to generate (normally between 10-13%).

To what extent do Britons think human activity is responsible for climate change?

Results based on responses to two questions: one on whether or not the climate is changing, and a second asking those who think it is to what extent they think human activity is responsible. %



So, the public perception is that climate change is happening…and perception is reality

United Nations

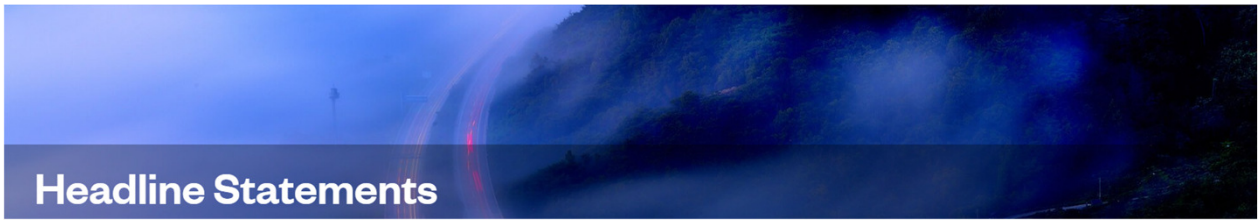
ipcc Intergovernmental Panel on Climate Change

ipcc.ch

The Intergovernmental Panel on Climate Change is an intergovernmental body of the United Nations. Its job is to advance scientific knowledge about climate change caused by human activities. The World Meteorological Organization and the United Nations Environment Programme set up the IPCC in 1988. Wikipedia

AR6 Synthesis Report

RESOURCES › DOWNLOAD › READ ONLINE › ipcc



A Current Status and Trends

Observed Warming and its Causes

A.1 Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 in 2011–2020. Global greenhouse gas emissions have continued to increase, with unequal historical and ongoing contributions arising from unsustainable energy use, land use and land-use change, lifestyles and patterns of consumption and production across regions, between and within countries, and among individuals (*high confidence*). {2.1, Figure 2.1, Figure 2.2}.

Observed Changes and Impacts

A.2 Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred. Human-caused climate change is already affecting many weather and climate extremes in every region across the globe. This has led to widespread adverse impacts and related losses and damages to nature and people (*high confidence*). Vulnerable communities who have historically contributed the least to current climate change are disproportionately affected (*high confidence*). {2.1, Table 2.1, Figure 2.2 and 2.3} (Figure SPM.1)

Climate Change Impacts and Climate-Related Risks

B.2 For any given future warming level, many climate-related risks are higher than assessed in AR5, and projected long-term impacts are up to multiple times higher than currently observed (*high confidence*). Risks and projected adverse impacts and related losses and damages from climate change escalate with every increment of global warming (*very high confidence*). Climatic and non-climatic risks will increasingly interact, creating compound and cascading risks that are more complex and difficult to manage (*high confidence*). {Cross-Section Box.2, 3.1, 4.3, Figure 3.3, Figure 4.3} (Figure SPM.3, Figure SPM.4)

What is the ‘climate emergency’?

‘The climate crisis – a race we can win’

Climate change is the defining crisis of our time and it is happening even more quickly than we feared. But we are far from powerless in the face of this global threat. As Secretary-General António Guterres pointed out in September, “the climate emergency is a race we are losing, but it is a race we can win”.

No corner of the globe is immune from the devastating consequences of climate change. Rising temperatures are fueling environmental degradation, natural disasters, weather extremes, food and water insecurity, economic disruption, conflict, and terrorism. Sea levels are rising, the Arctic is melting, coral reefs are dying, oceans are acidifying, and forests are burning. It is clear that business as usual is not good enough. As the infinite cost of climate change reaches irreversible highs, now is the time for bold collective action.

https://www.un.org/en/un75/climate-crisis-race-we-can-win#:~:text=Rising%20temperatures%20are%20fueling%20environmental,acidifying%2C%20and%20forests%20are%20burning.

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‘Global temperatures are rising’

Billions of tons of CO2 are released into the atmosphere every year as a result of coal, oil, and gas production. Human activity is producing greenhouse gas emissions at **a record high**, with no signs of slowing down. According to a ten-year summary of UNEP Emission Gap reports, we are on track to maintain a “business as usual” trajectory.

The last four years were the four hottest on record. According to a September 2019 World Meteorological Organization (WMO) report, we are at least **one degree** Celsius above preindustrial levels and close to what scientists warn would be “an unacceptable risk”. The 2015 Paris Agreement on climate change calls for holding eventual warming “well below” two degrees Celsius, and for the pursuit of efforts to limit the increase even further, to 1.5 degrees. But if we don’t slow global emissions, temperatures could rise to **above three degrees Celsius by 2100**, causing further irreversible damage to our ecosystems.

Glaciers and ice sheets in polar and mountain regions are already melting faster than ever, causing sea levels to rise. Almost **two-thirds of the world’s cities** with populations of over five million are located in areas at risk of sea level rise and almost 40 per cent of the world’s population live within 100 km of a coast. If no action is taken, entire districts of New York, Shanghai, Abu Dhabi, Osaka, Rio de Janeiro, and many other cities could find themselves underwater **within our lifetimes**, displacing millions of people.

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‘New extremes & a catalyst for conflict’

Disasters linked to climate and weather extremes have always been part of our Earth’s system. But they are becoming more frequent and intense as the world warms. No continent is left untouched, with heatwaves, droughts, typhoons, and hurricanes causing mass destruction around the world. **90 per cent** of disasters are now classed as weather- and climate-related, costing the world economy **520 billion USD each year**, while 26 million people are pushed into poverty as a result.

Climate change is a major threat to international peace and security. The effects of climate change heighten competition for resources such as land, food, and water, fueling socioeconomic tensions and, increasingly often, leading to **mass displacement**.

Climate is a **risk multiplier** that makes worse already existing challenges. Droughts in Africa and Latin America directly feed into political unrest and violence. The World Bank estimates that, in the absence of action, more than **140 million people** in Sub-Saharan Africa, Latin America, and South Asia will be forced to migrate within their regions by 2050.

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Effects of climate change on property

It has been confirmed that the past decade was the hottest on record for our planet, with the undeniable cause being human-induced climate change. Many will associate hot summers and mild winters with our changing climate, but the reality is much different. Climate change drives more extreme weather conditions, from severe cold, to wide-spread flooding, extended heatwaves and high-speed winds. As a homeowner you need to consider what impact these extreme weather conditions may have on your home in the future, and the steps you can take to protect what is likely your most valuable asset.

LEATHES PRIOR
SOLICITORS

Flooding & burst pipes

In December 2019 more than 100 flood warnings were put in place by the Environment Agency as some areas experienced record-setting levels of rainfall. Insurance pay-outs for those hit in Yorkshire and the Midlands are expected to reach £110 million. With increased moisture in the air due to higher global temperatures, flooding is likely to become more and more frequent.

Whilst flooding is often considered an "Act of God", neighbours do owe each other a duty to take reasonable steps to prevent natural occurrences damaging neighbouring properties. You should therefore both investigate the cause of any flooding that damages your property, and ensure that your property is not causing damage by flooding to a neighbour's land.

Rylands v Fletcher (1868) – strict liability

Despite the mild winter we are currently experiencing, one possible impact of climate change is periods of severe cold conditions. We experienced such a spell in March 2018 when the Beast from the East struck; a period during which burst pipe incidents increased ten-fold on the previous year.

Burst pipes can cause significant financial damage to properties, and with cold weather snaps becoming increasingly likely, the occurrence of burst pipes will undoubtedly rise in a similar manner. Homeowners need to consider whether they are at risk and take appropriate precautions.

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Subsidence & the impact on your home

One of the impacts of an increased global temperature is the greater evaporation of the moisture held in the soil. The drying of soil can lead to a loss in structural integrity below ground and increases the risks of subsidence. Subsidence can also occur as a result of trees located close to homes absorbing water from the soil through their roots, thereby drying the soil in a similar manner to increased soil evaporation.

Subsidence can cause irreparable damage to properties and can, at the very least, create a great deal of problems when it comes to selling your home. If you notice significant cracks in the walls of your property you should take immediate action. If you are unsure what to do then it is always best to seek professional advice.

The significance of climate change is being discussed globally every single day, and we are now experiencing the impact it will continue to have on our national climate. The protection you afford to your home will ultimately depend upon its location and how susceptible it is to the increased risks (including those set out above).

If a neighbouring property has caused damage to your home (as a result of an extreme weather event or otherwise), or you have caused damage to a neighbouring property, then please do not hesitate to contact our Litigation & Dispute Resolution Team for specialist advice on 01603 610911 or email the team here.

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Acknowledgments
Introduction
Real estate sector overview
Transition risks
1. Increasing regulation and policy pressure
2. Cost of indirect emissions
3. Shifting market preferences
4. Change in investor sentiment
5. Reputational risks
6. Transition risk guidance
SECTION 2:
Physical risks
1. Sea level rise and coastal flooding
2. Inland flooding
3. Extreme storms and wind
4. Wildfires
5. Subsidence
6. Heat and water stress
7. Physical risk guidance
References

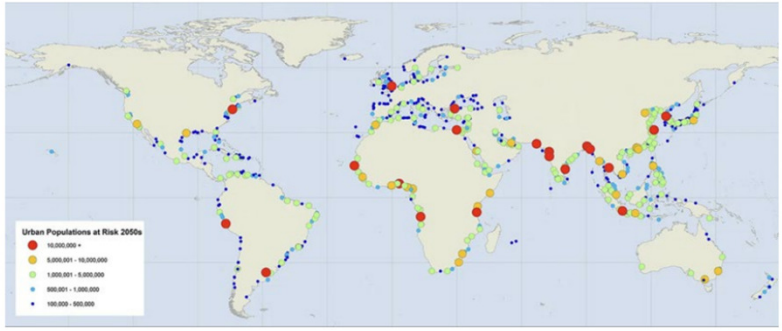
1. Sea level rise and coastal flooding

SECTION 2:
Physical risks

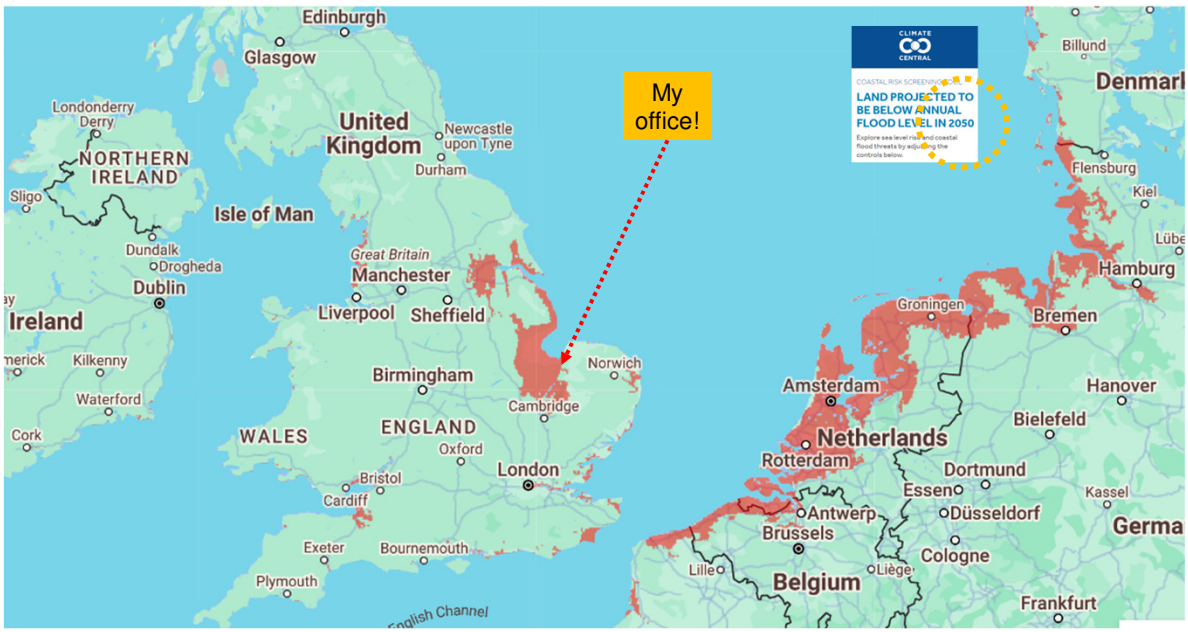
Extreme weather events pose major risks for the real estate sector. These extreme weather events include exceptionally high precipitation and flooding, hurricanes, and wildfires, as well as chronic risks such as subsidence and sea level rise in low-lying areas. Physical risks for the real estate sector are related to the damage caused to properties from weather events that are intensified by climate change.

than a decade (World Economic Forum, 2019). Over 90 coastal cities in the United States are experiencing chronic flooding, which is expected to worsen (Fu *et al.*, 2017), while three-quarters of cities in Europe are expected to be affected by rising sea levels (World Economic Forum, 2019). Figure 6 below shows the cities at risk of a 0.5-metre rise in sea levels by the 2050s (C40 cities, 2018). A study by Climate Central has shown that land currently inhabited by 300 million individuals globally will be subject to annual coastal flooding caused by predicted rises in sea levels by the 2050s (Forbes, 2022b; Climate Central, 2019).

Figure 6: Cities at risk from sea level rise of 0.5 metres by the 2050s (C40 cities, 2018)



Many high-value real estate assets are also located in coastal areas that are becoming increasingly vulnerable to storm surges and flooding. For example, a climate risk assessment by the Risky Business Project estimated that between US$66 billion and US$160 billion worth of real estate in the United States will be below sea level by 2050, increasing



https://coastal.climatecentral.org/map/8/-0.291/51.9773/?theme=sea_level_rise&map_type=year&basemap=roadmap&contiguous=true&elevation_model=best_available&forecast_year=2050&pathway=rcp45&percentile=p50&refresh=true&return_level=return_level_1&slr_model=kopp_2014

5. Subsidence

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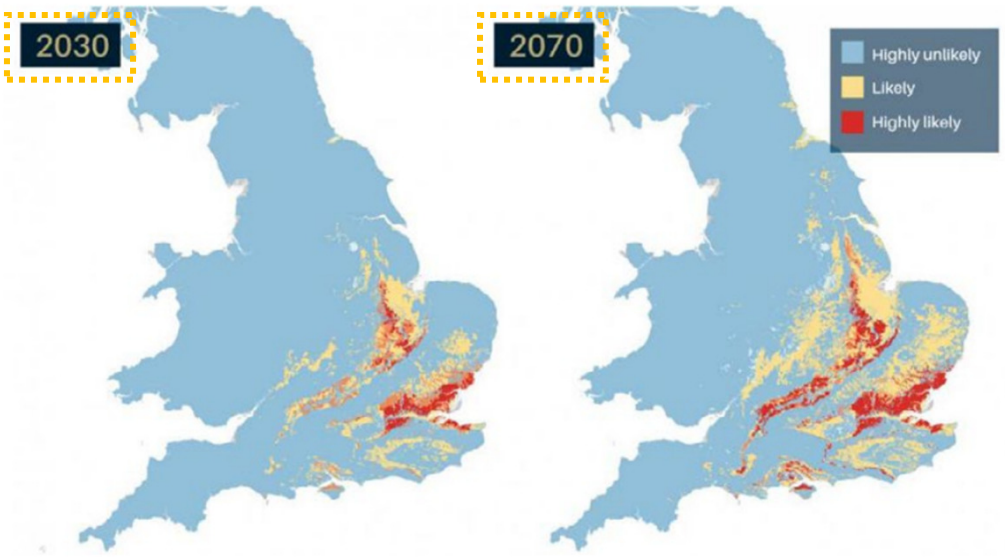
Extreme weather events pose major risks for the real estate sector. These extreme weather events include exceptionally high precipitation and flooding, hurricanes, and wildfires, as well as chronic risks such as subsidence and sea level rise in low-lying areas. Physical risks for the real estate sector are related to the damage caused to properties from weather events that are intensified by climate change.

As the global temperature rises and the occurrence of dry weather increases, the emergence of subsidence due to climate change will become more likely. Subsidence—which occurs when the ground beneath a property sinks, pulling the foundations of a property down and causing the walls and floors to shift—has the potential to destabilise the structure of a property (Hamilton Fraser, n.d.). An increasing number of real estate buildings could potentially be at risk of subsidence in the coming years. An analysis by the British Geological Survey estimated that the number of buildings across Britain likely to suffer will increase from 3% in 1990 to 6.5% by 2030 (Figure 10) (British Geological Survey, 2021). Subsidence can cause a rise in insurance premiums and a decrease in real estate prices. Properties exposed to subsidence may also require engineering work for land stabilisation or replacement of damaged infrastructure, which can increase costs (British Geological Survey, 2021).

Figure 10: Areas expected to experience significant increase in susceptibility to subsidence by 2030 and 2070 (British Geological Survey, 2021)



Areas already susceptible to subsidence will become more prone to movement

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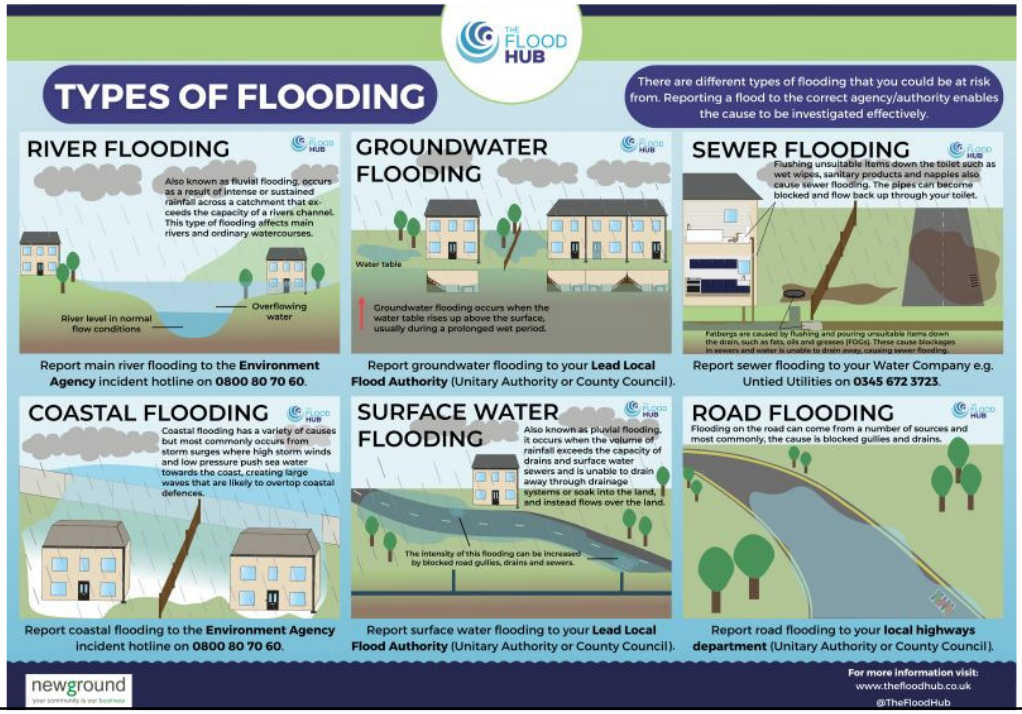

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Some potential issues arising from increased groundwater flooding

- More waterlogging in gardens, making them less usable for occupiers and causing death of plants not suitable for planting and living in waterlogged ground;
- Higher groundwater means a potential for increased water pressure leading to failures in inadequate damp-proofing (gaps, cuts, tears, no lap between dpm and dpc etc.);
- Independent foul drainage systems (septic tanks, sewage treatment plants and cesspools) may be inundated (and if not impermeable will allow water into the system, with resultant risk of sewage coming back into the home) and any land and or tail drains and soakaways may fail to work

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Possible general alterations in weather patterns and local weather

- More rain and heavier rain in shorter bursts, leading to:
  - Higher groundwater levels,
  - 'Flash flooding',
  - Rain falling on roofs and against walls etc. for longer periods;
- Stronger winds, which tend anyway to be stronger:
  - Close to the coast (within 10km),
  - With increases in height above sea level,
  - In country locations, and
  - Where the ground is 'rougher';
- Higher temperatures, leading to:
  - Overheating of the internal environment in the home,
  - Increased drying out of the ground (? – see above), causing more subsidence, and
  - Moister condition, possibly causing more rot (fungal decay) and wood-boring insect attacks.

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Maslow's Hierarchy of Needs

By Elizabeth Hopper
Updated on May 14, 2024

Maslow's hierarchy of needs, proposed by Abraham Maslow, presents a framework suggesting that human motivation stems from a hierarchy of five fundamental categories: physiological, safety, love, esteem, and self-actualization. The theory posits that as individuals progress through these needs, they experience a greater sense of fulfillment and motivation.

Maslow's framework offers insights into individual motivation and also provides a lens through which we can better understand human behavior and well-being. From the foundational physiological needs, which address basic requirements for survival, to self-actualization, which represents the realization of one's fullest potential, learn more about each category within Maslow's hierarchy.

Any threat posed by the climate emergency to people's homes is a potential threat to a basic human need, their lives

Some parts of the fabric that might be affected

- Chimneys and parapets – stronger winds (damage), more and heavier wind-driven rain (water ingress)
- Parapet and valley gutters and valleys generally may become overwhelmed at times
- Roof coverings – ditto
- Rainwater fittings – more and heavier wind-driven rain (overflow causing damage)
- Outside walls – as chimneys, plus movement of shrinkable soils (subsidence damage)
- Heating & Cooling systems
- Drainage – more and heavier rain (combined systems unable to take sudden load and backing up)
- Flooding & coastal erosion
- Building's insurance and lender reaction

And some other associated issues

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BRE Housing Defects Prevention Unit

Defect Action Sheet (Site)

CI/SfB 1976 8 (21.9) M (D6) | DAS 95

February 1987

Masonry chimneys: DPCs and flashings — installation

FAILURES: Water penetration; staining of chimney breasts and ceilings, dampness in roof timbers.

DEFECTS: DPCs omitted or wrongly positioned; roof flashings wrongly installed.

Cases of damage to decorations arising from rain penetration of chimney stacks are frequently seen — Figure 1.

If ***dpcs*** in the chimney at ***roof level*** and ***beneath the cap*** are ***wrongly positioned*** or ***poorly built*** then ***rain penetration and damage to decorations can occur.***

Modern chimney, 'signed off' by Building Control and warranty provider – in the wrong place

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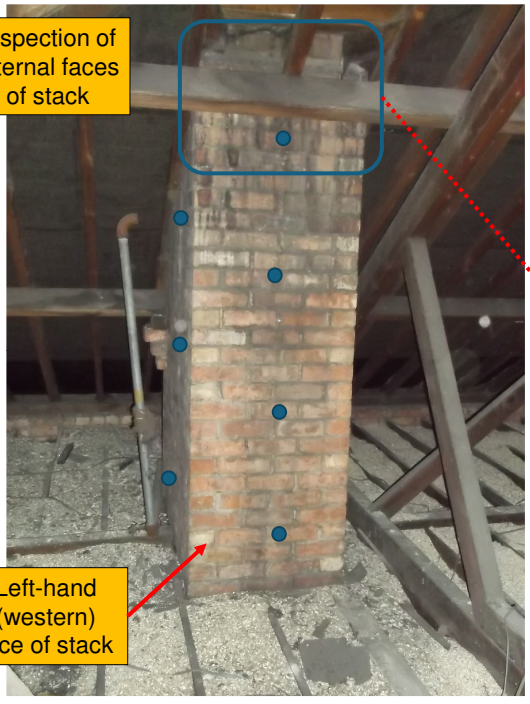
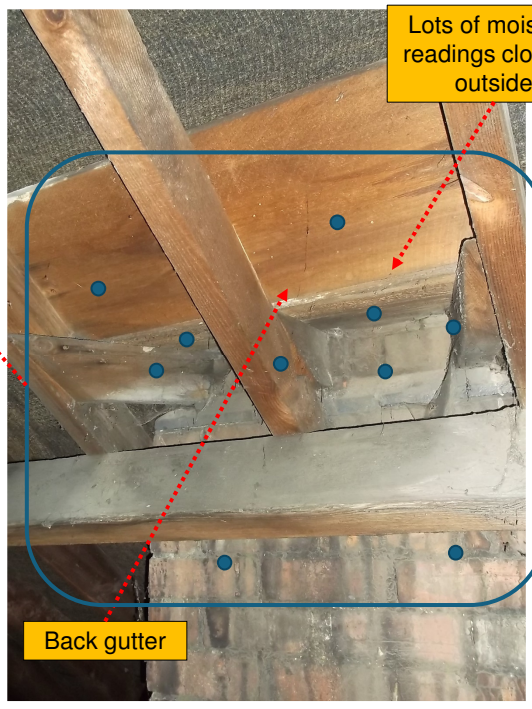


Inspection of internal faces of stack

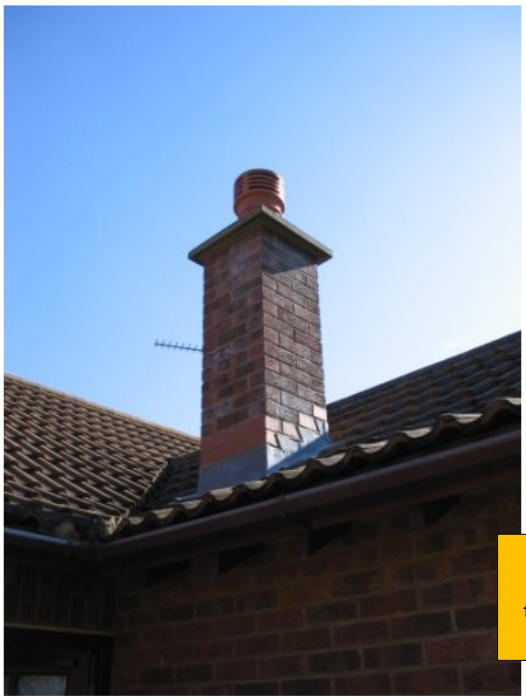
Left-hand (western) face of stack



Lots of moisture readings close to outside

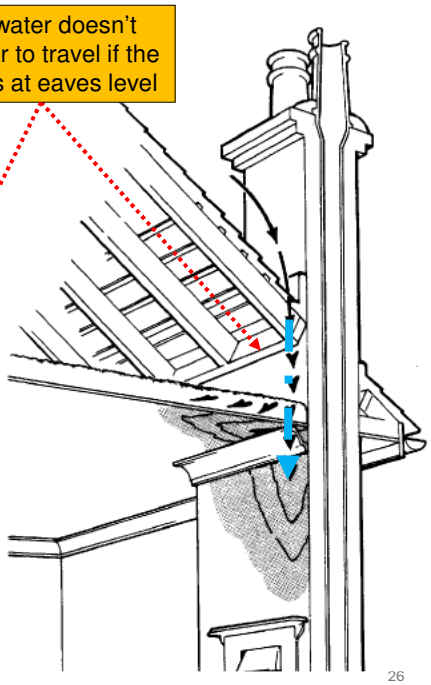
Back gutter

Stacks at eaves level….



….the worst type of stack

The water doesn't have far to travel if the stack is at eaves level



Damp issues are usually compounded if there is a parapet wall

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PREVENTION

Principle — Correct construction and positioning of dpcs in chimneys is critical if rain falling on the brickwork is to be kept out of the house.

Practice

- Check where dpcs are specified to be installed, eg beneath the chimney capping, Figure 2a and at roof junction level, Figure 2b, c, d;
  — where the chimney is not too exposed the use of two courses of dpc brick or two courses of slate bedded in a 1:0 to ¼:3 cement:lime:sand mortar may be satisfactory.
- Ensure that the dpc or tray is laid on a bed of mortar, raking out at the front to allow for the tuck under of the front apron, Figure 3.
- Ensure that the front apron is tucked under, not over the dpc or tray.
- Check that trays have upstands of at least 25 mm to inner edges within flues and to back and sides, Figure 4.

In practice, few old chimney stacks have DPCs…

…and even if they ARE installed, they are usually incorrectly detailed

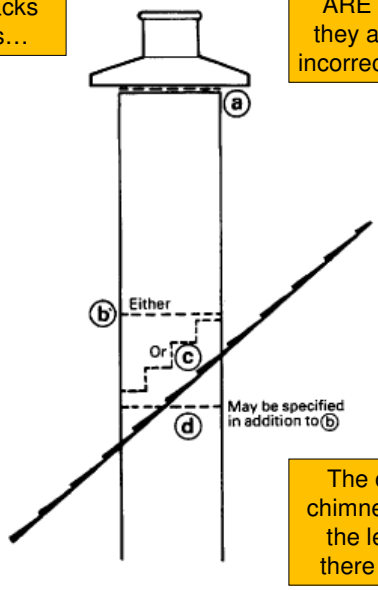

Figure 2

The older the chimney stack is, the less likely there is a DPC

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- Check that corners in trays form a watertight junction.
- Ensure that lead trays, Code No. 4 (blue marked), are coated both sides with bitumen paint:
  — if a solvent based paint is specified check that correct product is used (eg check that product instructions are to clean brushes in solvent, not in water).
- Ensure that a joint in the flue liner coincides with the level of the tray.
- Ensure that bed and perpend joints are completely filled with mortar and that a bucket handle or weathered joint is used.
- Ensure that flashings and soakers are in the correct position, tucked into the bed joint at least 25 mm and wedged.

REFERENCES AND FURTHER READING

Defect Action Sheet DAS 71 'External masonry walls: repointing specification'.

Flashings are seldom properly tucked in, wedged and supported

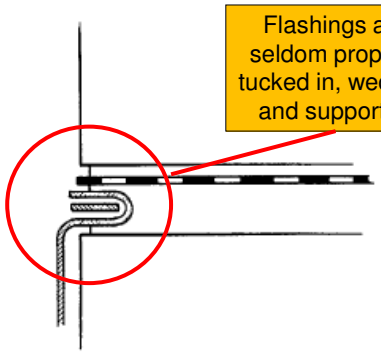


Figure 3

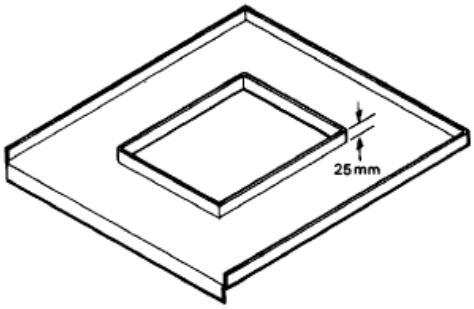
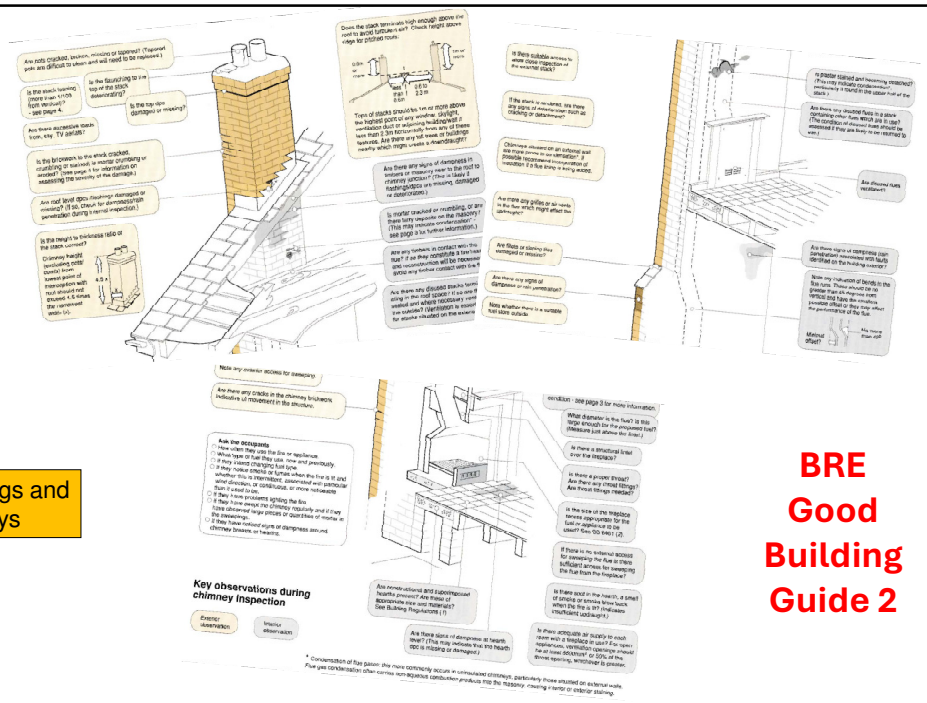
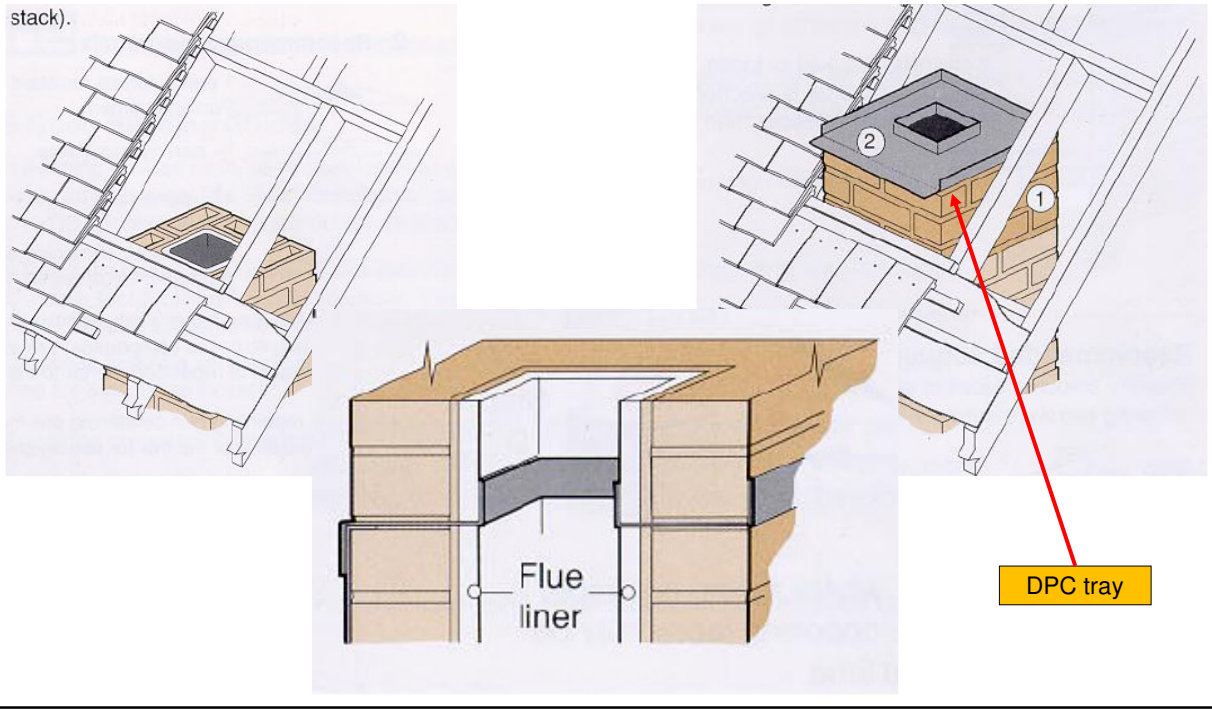


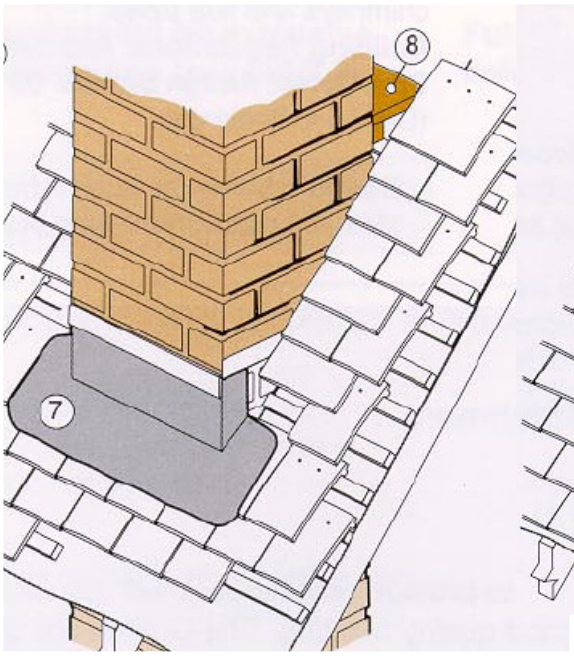
Figure 4

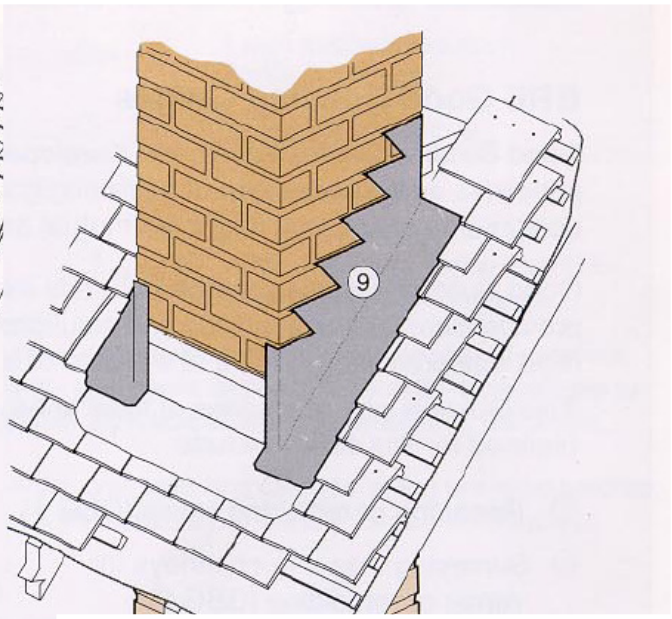


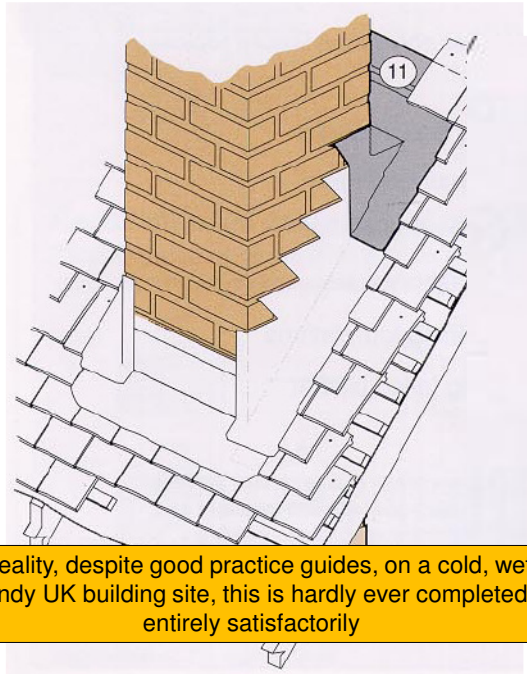
Flashings and trays

BRE Good Building Guide 2

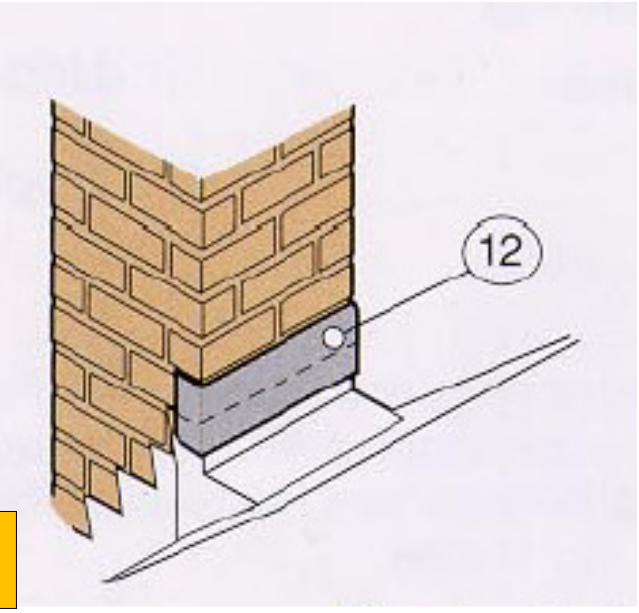








In reality, despite good practice guides, on a cold, wet, windy UK building site, this is hardly ever completed entirely satisfactorily



Flashings and fillets

- Lead or other metal flashings can work loose as they are often not properly wedged & chased in;
- Mortar (cement and sand) fillets usually always crack, leading to water penetration due to either:
  - Shrinkage of the mortar, or (more likely),
  - Deflection of the roof structure;
- Tile and mortar fillets perform better as the tiles help prevent shrinkage of the mortar.

When it all goes wrong


Isolate it

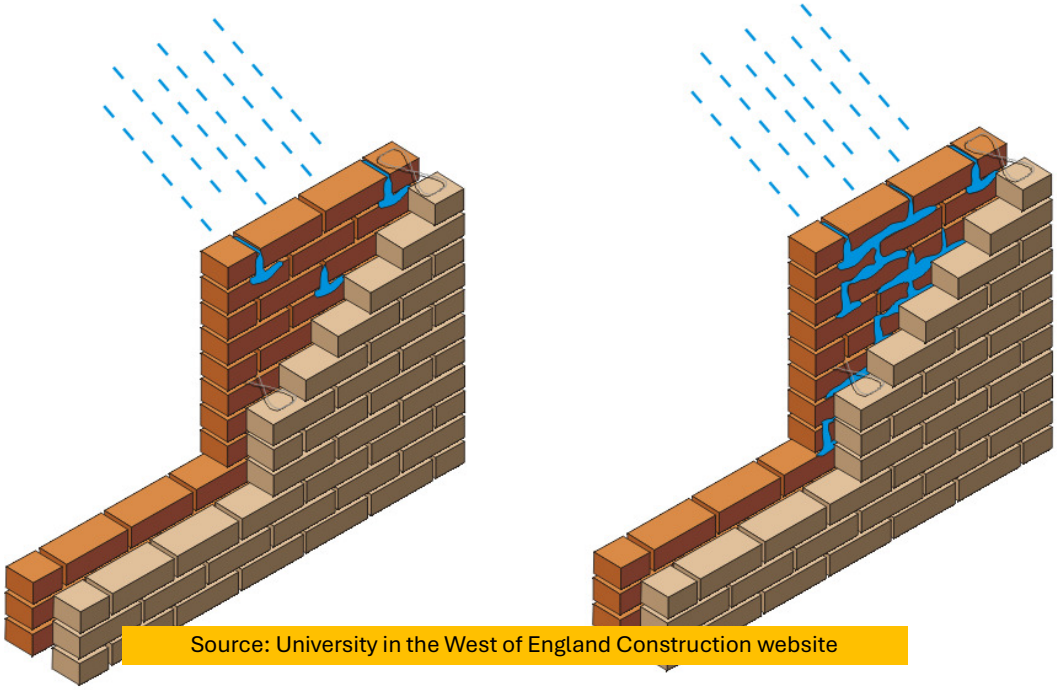
Possible paragraph(s) – chimney stacks

The phenomenon known as ‘climate change’ or the ‘climate emergency’ is anticipated to result in changes in weather patterns. Indeed, there are indications we are already experiencing such changes. This may be causing drier summers and wetter winters together with tropical type storms including periods of heavier rain and sometimes stronger winds. Chimney stacks are particularly prone to damage caused by weather as they are so exposed. Chimney pots are especially prone to wind damage. It is likely you will therefore need to regularly inspect the chimney pots and other parts of the chimney stack at high level to ensure you identify and repair defects in those parts.

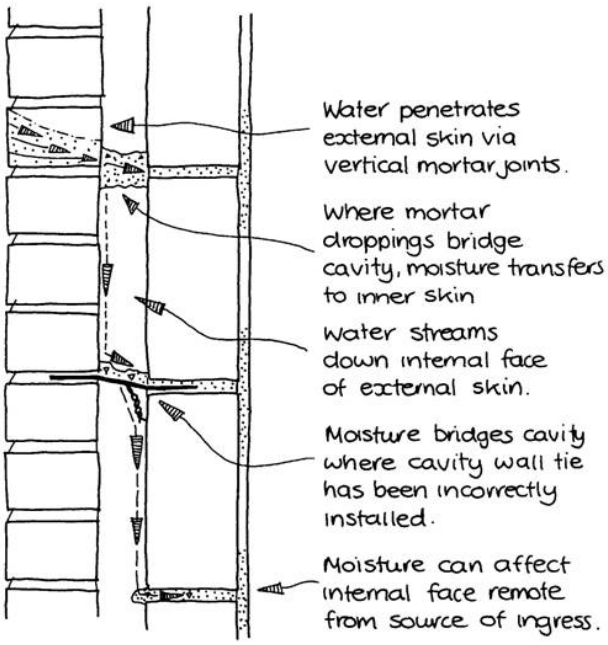
The possibility of heavier rainfall and winds and rain falling for longer periods due to climate change is likely to result in a risk of more water penetration into chimney stacks. Water penetration downwards in chimneys can occur, especially if there is no damp-proof course (DPC) in a chimney stack, or the DPC is in the wrong place, as is often the case. In this property (text). [*describe presence or otherwise & efficacy of DPC*] Such water penetration usually only wets any chimney breast in the roof space and tends to dry out once the rain stops – you can often see resultant salt stains in any stack in the roof space. However, if more rain tends to fall for longer periods in the future, there is an increased risk the water will penetrate further downwards, into living accommodation such as bedrooms. Chimney stacks at the lower edges (eaves) of a roof are especially likely to suffer this problem. This can cause issues such as rot (fungal decay) and wood-boring insect attacks in timbers and damage to plaster and decorations. This is a risk to the property – see ‘risks to property’ in section ? for further details.

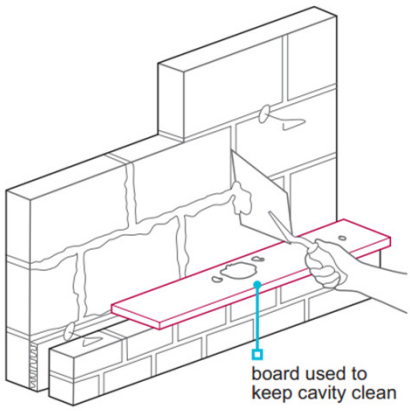
Penetrating dampness in cavity walls

- cracked and or deteriorated mortar or brickwork.
- wall ties sloping downwards and inwards.
- mortar snots on wall ties or bridging cavity.
- mortar snots on insulation batts.
- snapped headers which project across the cavity.
- absence of cavity trays at abutments between roofs and walls.
- lack of satisfactory cavity trays, stop ends and weep-holes to lintels.
- remedial work is expensive, but possible; although in some instances may require total rebuilding of the outer leaf including introduction of an insulated cavity but with an actual cavity.



Source: University in the West of England Construction website





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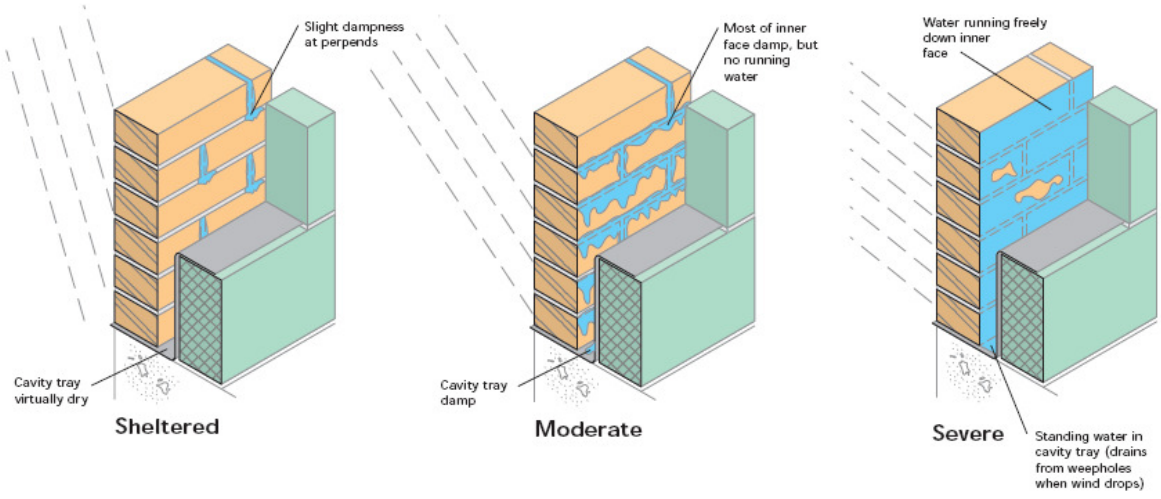
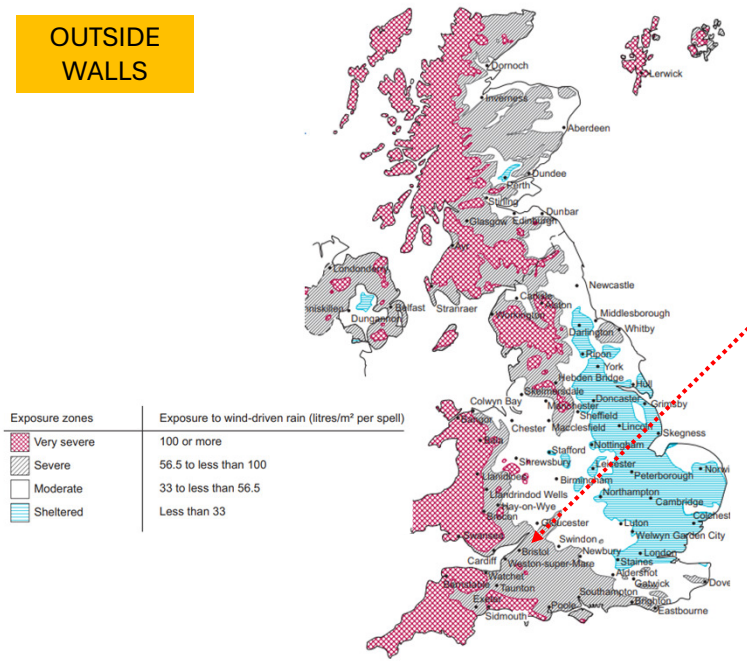
Resistance of Outer Leaf to Wind-driven Rain



OUTSIDE WALLS

References: BRAD ‘C’ and NHBC Handbook

Figure 1: Exposure zones



Exposure zones	Exposure to wind-driven rain (litres/m² per spell)
Very severe	100 or more
Severe	56.5 to less than 100
Moderate	33 to less than 56.5
Sheltered	Less than 33

Cavity insulation

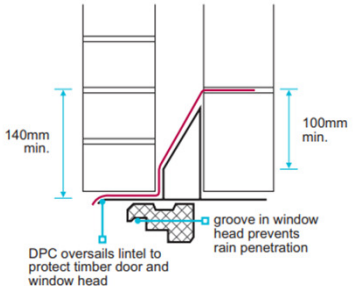
If the cavities are insulated, the insulation material should be suitable for use in zone 3

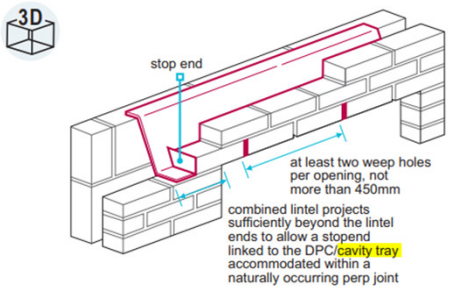
The property is unlikely to have cavity trays above the window and door openings – **risk of water penetration**

Cavity trays

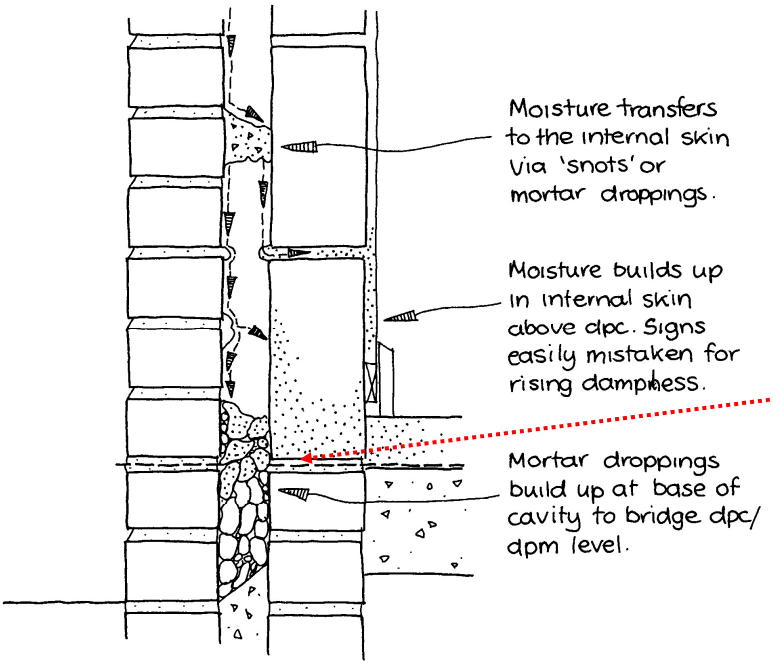
Cavity trays should be provided at all interruptions to the cavity (e.g. window and door openings and air bricks) unless otherwise protected (e.g. by overhanging eaves). Cavity trays should:

- provide an impervious barrier and ensure that water drains outwards
- cover the end of the lintel and project sufficiently beyond the lintel ends to allow a stopend linked to the DPC/cavity tray accommodated within a naturally occurring perp joint
- provide drip protection to door and window heads
- have a 140mm minimum upstand from the inside face of the outer leaf to the outside of the inner leaf
- not be low-density polyethylene (LDPE) to BS 6515
- have appropriate third party certification
- be shaped to provide 100mm minimum vertical protection above points where mortar droppings could collect
- be provided where the cavity is bridged by air bricks, etc. and the DPC should extend 150mm beyond each side of the bridge
- where not otherwise protected (e.g. by a roof at an appropriate level), be provided over meter boxes
- be in one continuous piece or have sealed or welded joints
- be used in accordance with the manufacturer's recommendation.





Although dampness may not be detected at low level in the property, will you need to check the base of the cavity for debris such as mortar snots? **Wet debris could cause condensation – wet materials are colder**



.....problem of mortar droppings at base of cavity very common prior to 1982 (when most cavity walls began to be insulated) and forms a 'cold-bridge'

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Semi-detached house, built 1954, stretcher brickwork, 275mm thickness including inside plaster – are these likely to be cavity walls?

YES

or

NO

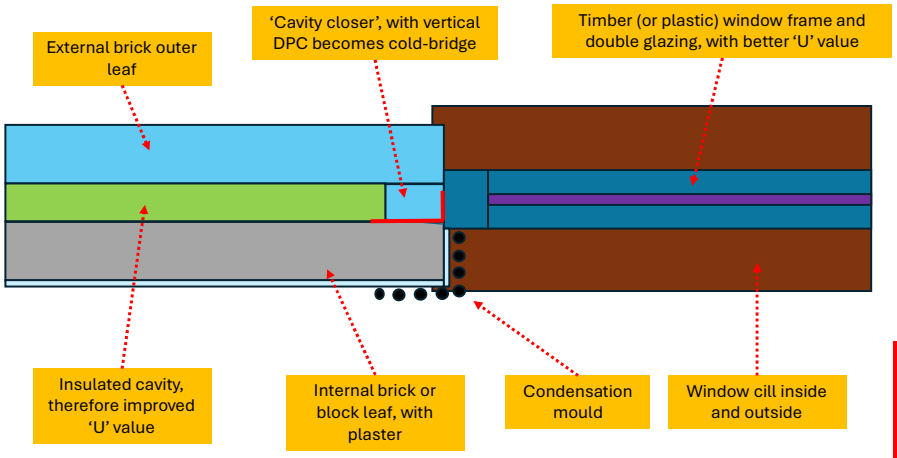
Case study

If this cavity wall is insulated, cold-bridging to the back of the lintel and reveals would be made worse, why?

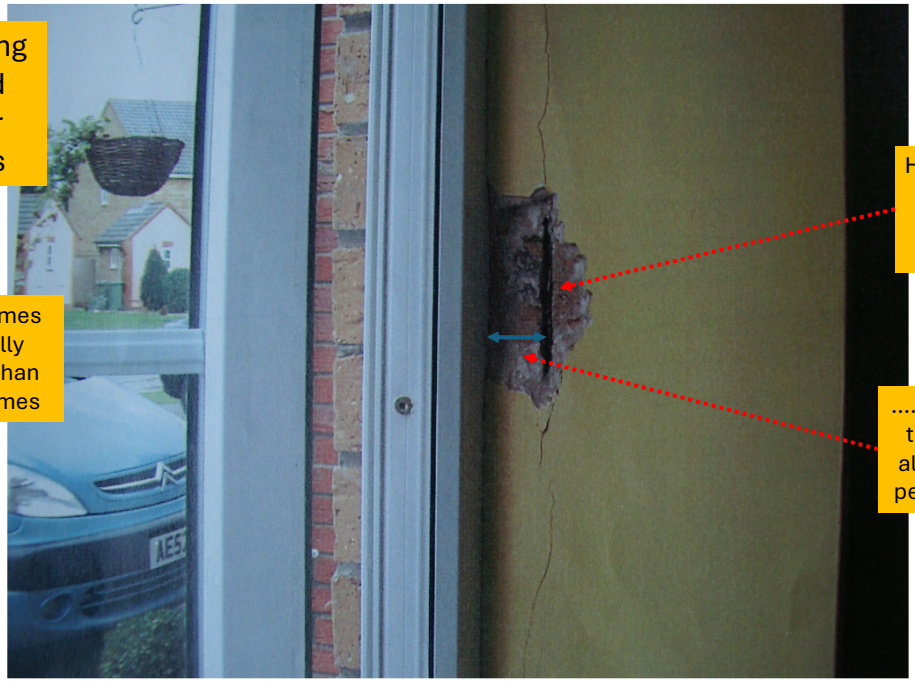
Most ‘cavity’ walls built up to around 1995-ish have solid parts around window and door openings and possibly at the eaves

Solid brick ‘cavity closers’ to reveals (sides), to sills and uninsulated steel or concrete lintels to windows and doors mean around average 10 – 15% of many ‘cavity’ walls are actually solid

Reveals to windows and doors, after 1981 – **result**



10 – 15% of ‘cavity’ walls built 1920 – 1995 are actually solid



Possible paragraph(s) – outside cavity walls

The phenomenon known as 'climate change' or the 'climate emergency' is anticipated to result in weather changes. Indeed, there are indication we are already experiencing such changes, with drier summers and wetter winters together with tropical type storms including very heavy rain and sometimes higher winds. The possibility exists therefore that outside cavity walls on most properties in the UK may be subjected to heavier and more prolonged periods of rain. Cavity walls are intended to prevent water penetration, but there are sometimes weaknesses in such walls that can allow rainwater ingress. If climate change continues, there is a risk this issue could become more of a problem generally in significant numbers of homes in the UK. I saw no evidence of this issue in the property at the time of my inspection. Water penetration through outside walls can cause damage to plaster, timbers (resulting in rot and wood-boring insect attacks) and decorations. This is a risk to the property – see 'risks to property' in section ? for further details.

‘Combined’ (foul & surface water) drainage systems

- ‘*There are over 500,000 kilometres of sewers in this country, about a fifth of which is “combined”. It is given that name because, for those 100,000km of pipe, sewage from homes is combined together with rainwater that has run into drains in our streets and roads. Overflows were built into this combined pipe to stop flooding during storms, and it is these overflows that are responsible for the many spills we see up and down the country and the associated, justified, public outrage*’.
- Thus, around 20% of surveys involve these systems.
- Plus, they are usually old and in older built-up areas.

Water UK

Increased and or heavier rainfall will lead to more discharge of surface water into combined drainage system

This will cause an increasing number of such systems to be overloaded, resulting in sewage and surface water ‘backing up’ into the system on the property you inspected – your client will sometimes see their breakfast twice!

UK Flood Defence Alliance
https://www.ukflooddefencealliance.com › Shop

Drainage Non Return Valve

Available in a range of sizes our Non-Return Valves can be fitted above and below ground and will completely protect your property from the threat of back-fill.
£150.00 · In stock

Buffalo 4 Inch / 110mm Non…
£78.99 & more prices
Screwfix.com, 5+
In shop
4.2 ★★★★☆ (9)

Karmat 110mm Non-Return Anti-…
£71.25 & more prices
Amazon.co.…, 10+
Free delivery
4.9 ★★★★★ (29)

Non Return Valve - Self-activating Valve Designed …
£200.00
M3 Floodtec

McAlpine T28M-NRV Non-Retur…
£19.88 & more prices
Toolstation, 10+
In shop
4.7 ★★★★½ (87)

Possible paragraphs – combined drainage

The phenomenon known as 'climate change' or the 'climate emergency' is anticipated to result in weather changes. Indeed, there are indication we are already experiencing such changes, with drier summers and wetter winters together with tropical type storms including very heavy rain and sometimes higher winds. The possibility exists therefore that the foul / combined [*delete*] public drainage system beneath the highway may at times be overwhelmed by 'flash-flooding'. Indeed, to my knowledge this has occurred in the area recently before my inspection. [*delete*] This could result in water and foul sewage 'backing up' within the combined public drainage system and causing flooding in or on the property. I recommend you install a 'non-return' valve in the last inspection chamber (man-hole) to help prevent this occurring.

There is a risk that climate change may cause the combined public drainage system to 'back up' into the drainage system on the property. This could cause flooding in the property, with a resultant risk of damage to masonry, plaster and decorations and also increase the risk of fungal decay (rot) and wood-boring insect attacks. Flooding could also affect the soil and foundations, with a possibility of damage to foundations causing structural movement. This is a risk to the property – see 'risks to property' in section ? for further details.

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One surveyor's general climate change advice

'Like everything else, buildings are being affected by climate change and the home-buying public need to be aware of a new range of issues when considering a property purchase.

In the most general terms, buildings are not equipped to deal with new climate conditions in the UK. Buildings are suffering a battering from the weather on a much more regular, extreme basis. Most building parts will be shorter lived and more vulnerable to damage. Increasingly houses are overheating in summer and leaking in extreme wet weather. Gutters are often undersized, walls are being saturated before they are able to dry out, and flash flooding is more prevalent.

It is important to understand that all buildings require regular repair and maintenance and that the purchasing of a survey is in no way an indemnity against future issues. Many parts will be affected to a greater or lesser extent'.

Mike Ridgell
Chartered Surveyor
& Sava Trainer

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Conclusions

- Climate change is here to stay, or at least that is the view of the vast majority of the scientific community, which is confirmed by public perception (and perception is reality);
- The UN and other agencies believe there are likely to be significant global changes arising from the climate emergency and has identified some probabilities in that regard;
- Property is fundamental to people's lives in many ways and any threat or risk to their homes is a threat to their wellbeing;
- Even relatively minor changes to weather patterns and behaviour could pose significant threats to property;
- We have considered a very small number of a property's elements and the possible consequences of climate change; and
- I believe some comment, even just a simple paragraph or two (like Mike Ridgell is doing) is now a minimum requirement for survey reports.

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