



Basingstoke
and Deane

Energy Efficiency in the Historic Environment: An overview and Q&A

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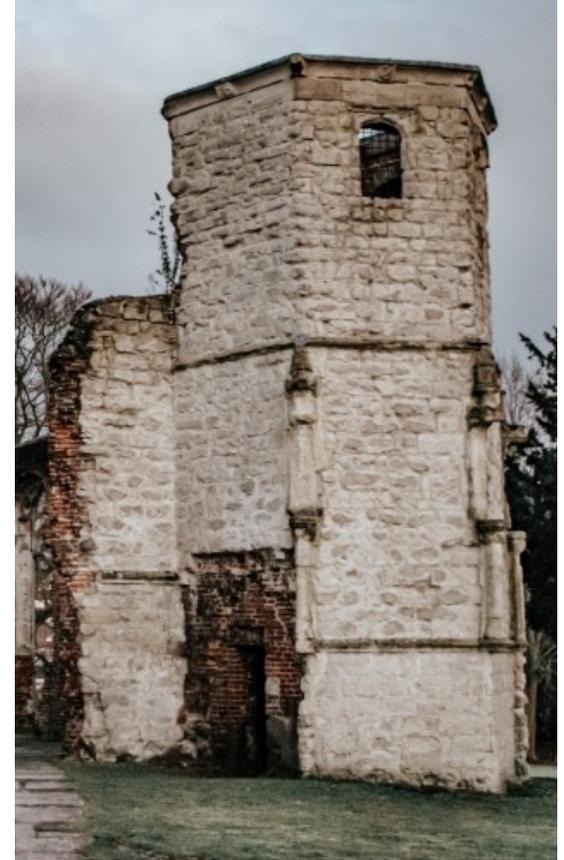
What is the Historic Environment?

In this relatively small country everywhere bears the marks of our predecessors' efforts to sustain life and satisfy their needs. That part of our surroundings that displays the interaction between people and places through time is called the historic environment.

Some parts of the historic environment are important to society as a whole or to a group within it and merit some level of protection or consideration. These are called our heritage assets – our shared cultural heritage. They are the elements of the historic environment that we value for more than their money's worth. The generations that follow us are most likely to value them too, for the same or similar reasons. It has therefore long been accepted that we have a responsibility to look after them.

It is this responsibility that justifies a protection system for the historic environment and the consequent interference with the private rights of property owners. As William Morris said: *“We are only the trustees for those who come after us.”* We are ultimately custodians our shared heritage.

Legislation that offers protection for heritage assets has developed in a piecemeal fashion. It uses a variety of terms to identify the essence of what makes a heritage asset valued and worthy of protection. The law refers variously to the architectural, historic, artistic, traditional and archaeological interest of heritage assets and the character that derives from those attributes. The term ‘significance’, as defined in the NPPF, encompasses all of the different interests that might be grounds for designating a heritage asset.



Legislation

The Planning (Listed Buildings and Conservation Areas) Act 1990 is an Act of the Parliament that altered the laws on granting of planning permission for building works concerning the historic environment.

Sections 16 and 66 concern the LPA's responsibility in determination of applications to alter a listed building:

*Section 16 (2) In considering whether to grant listed building consent for any works the local planning authority or the Secretary of State shall have **special regard to the desirability of preserving the building or its setting** or any features of special architectural or historic interest which it possesses.*

*Section 66 (1) In considering whether to grant planning permission [or permission in principle] for development which affects a listed building **or its setting**, the local planning authority or, as the case may be, the Secretary of State shall have **special regard to the desirability of preserving the building or its setting** or any features of special architectural or historic interest which it possesses.*

Legislation

The Planning (Listed Buildings and Conservation Areas) Act 1990 is an Act of the Parliament that altered the laws on granting of planning permission for building works concerning the historic environment.

Section 72 concerns the LPA's responsibility in determination of applications to alter an element of a conservation area:

*Section 72 (1) In the exercise, with respect to any buildings or other land in a conservation area, of any [functions under or by virtue of] any of the provisions mentioned in subsection (2), **special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area.***



Policy

The **National Planning Policy Framework (NPPF)** is a land-use planning policy in England. It was originally published by the UK's Department of Communities and Local Government in March 2012, consolidating over two dozen previously issued documents called Planning Policy Statements (PPS) and Planning Policy Guidance Notes (PPG) for use in England. It has since been revised in 2018, 2019, 2021 and 2023.

The government has set out its planning policies for the historic environment and our heritage assets in the NPPF.

The government published its Planning Practice Guidance in March 2014 and keeps it updated as appropriate.

Both the NPPF and the Planning Practice Guidance are material considerations in relevant planning applications and in relation to all listed building consents and planning permission for relevant demolition in a conservation area.



Policy

The **National Planning Policy Framework's (NPPF)** Section 16 concerns the historic environment:

Para. 189: Heritage assets...are an irreplaceable resource, and should be conserved in a manner appropriate to their significance

Para. 194: LPA's require an applicant to describe the significance of any heritage assets affected, including any contribution made by their **setting**. The level of detail should be proportionate to the assets' importance...using appropriate expertise where necessary.

Para. 196: Where there is evidence of deliberate neglect of, or damage to, a heritage asset, the deteriorated state of the heritage asset should not be taken into account in any decision.

Para. 199: When considering the impact of a proposed development on the significance of a designated heritage asset, **great weight** should be given to the asset's conservation. This is **irrespective** of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.

Para. 200: Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its **setting**), should require clear and convincing justification.

Policy

Basingstoke and Dean Borough Council Local Plan 2011-2029

Policy EM11 – The Historic Environment:

All development must conserve or enhance the quality of the borough's heritage assets in a manner appropriate to their significance. Development proposals which would affect designated or non-designated heritage assets will be permitted where they:

- a) **Demonstrate a thorough understanding** of the significance of the heritage asset and its setting, how this has informed the proposed development, and how the proposal would impact on the asset's significance. This will be proportionate to the importance of the heritage asset and the potential impact of the proposal;*
- b) Ensure that extensions and/or alterations **respect** the historic form, setting, fabric and any other aspects that contribute to the significance of the host building;*
- c) Demonstrate a thorough understanding of the significance, character and setting of conservation areas and how this has **informed** proposals, to achieve **high quality** new design which is respectful of historic interest and local character;*
- d) **Conserve or enhance the quality, distinctiveness and character** of heritage assets by ensuring the use of appropriate materials, design and detailing; and*
- e) Retain the **significance and character** of historic buildings when considering alternative uses and make sensitive use of redundant historic assets.*

Basingstoke and Deane Local Plan (2011 to 2029)

Adopted May 2016



Policy

Basingstoke and Dean Borough Council Heritage SPD (2019)

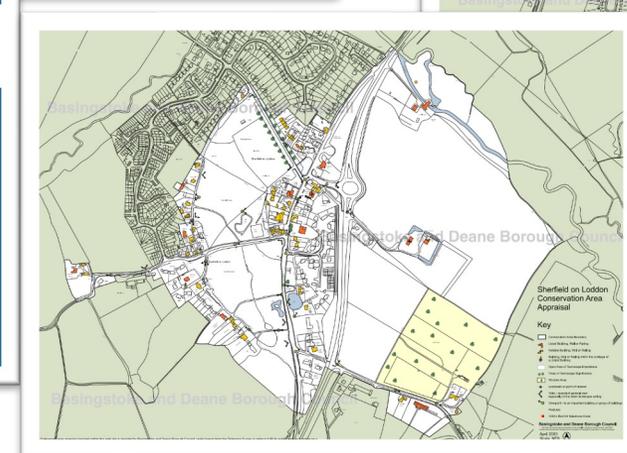
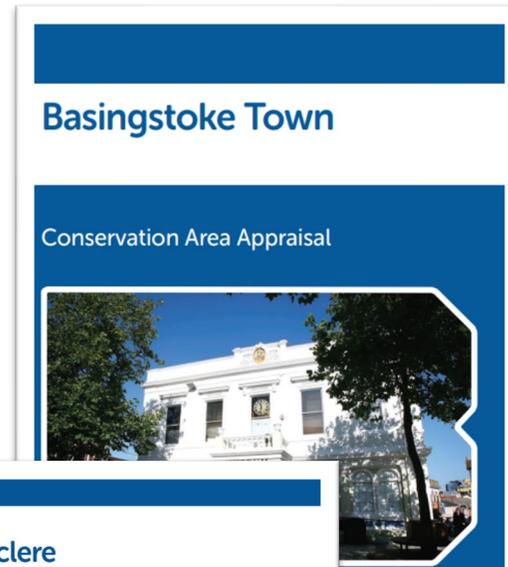
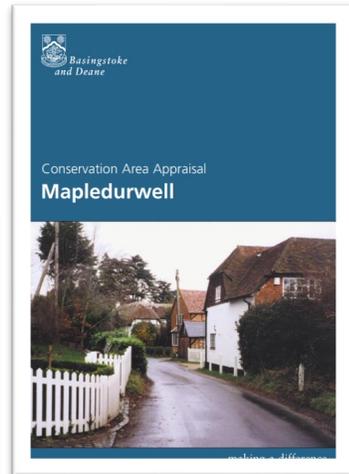
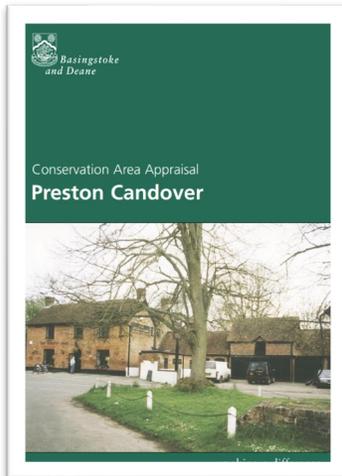
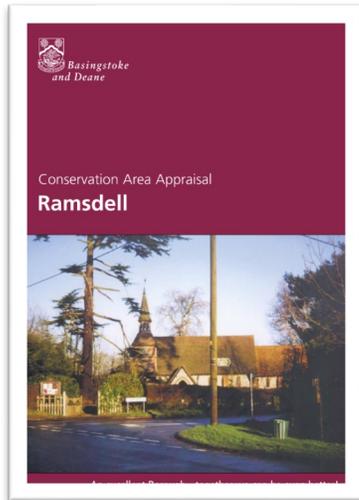
*The Supplementary Planning Document (SPD) does not include new policies, but identifies more detailed development principles and provides guidance, building on existing planning policy, in particular Policy EM11 (The Historic Environment) of the Basingstoke and Deane Local Plan 2011-2029. This document will be a **material consideration** in determining planning applications and applications for listed building consent in Basingstoke and Deane. The SPD is made up of a main document and appendices: principles are included in the main document and in some of the appendices*



Policy

Basingstoke and Dean Borough Council Conservation Area Appraisals

The Borough has 47 Conservation Areas, all of which have a Conservation Area Appraisal document.



Policy

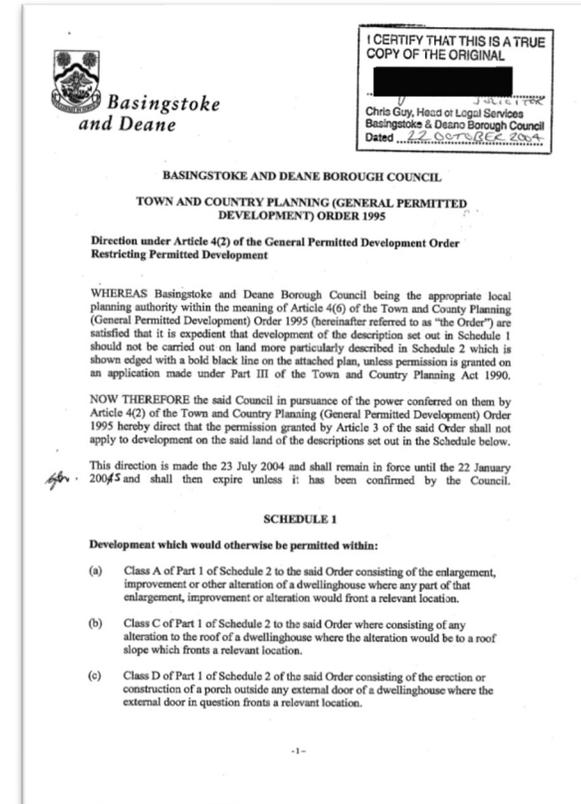
Article 4 Directions:

Some conservation areas are areas of particularly sensitive historic character. This means that minor alterations will be far more noticeable and potentially damaging to the special appearance of the area. Due to this sensitivity, the council has powers to introduce what is known as an Article 4 Direction.

This ensures that a range of work, generally where it can be seen from the street, which could otherwise normally be done in conservation areas without the need for permission, can then be adequately managed through the planning permission process. Such work includes:

- The replacement of windows and doors.
- The installation of any solar panels, including to the roof.
- The installation of roof lights.
- The construction, alteration or demolition of boundary walls.
- The construction, alteration or demolition of a porch.
- The replacement of fascias, soffits or guttering.
- The construction, alteration or demolition of outbuildings.
- The construction or alteration of paving or other hard-surfaced areas.
- External painting or changing the external paint colour of your building

Some of our conservation areas have Article 4 Directions; including Fairfields, South View and Brookvale West and Basingstoke Town Centre all of which are Victorian or Edwardian urban areas of Basingstoke.

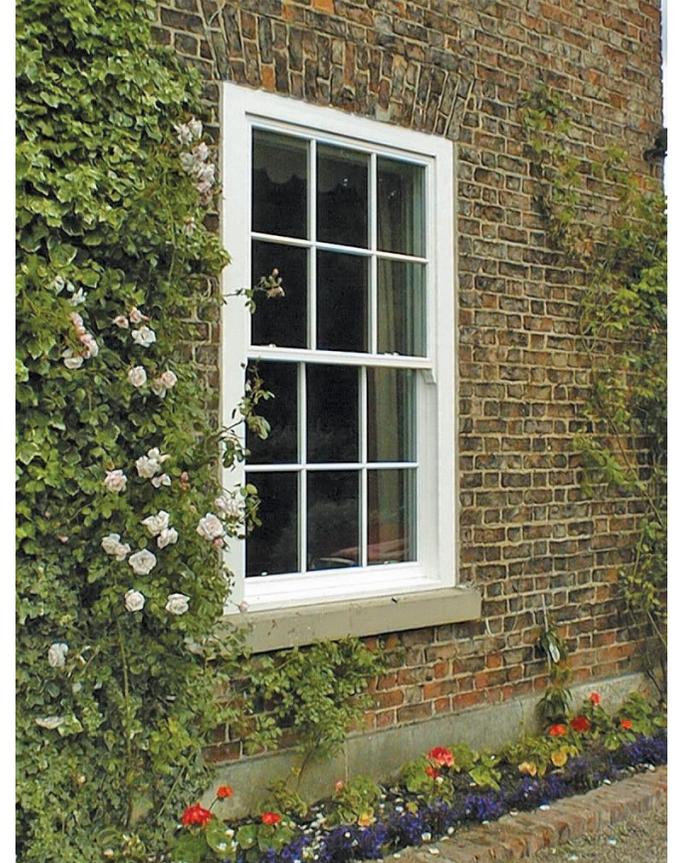


Heritage and Sustainability

The most sustainable building is the one that already exists. To meet the government's target of being carbon neutral by 2050, we must adapt and reuse our existing buildings first, rather than demolishing and building new. This would mean the CO₂ emissions already embodied within existing buildings are not lost through demolition.

The whole life approach to energy consumption of buildings

The energy consumed by a building is made up of three components: embodied energy (the energy consumed to make the building and to refurbish and maintain it over its lifetime); operational energy (the energy consumed in the running of the building e.g. for heating and lighting); and demolition energy (the energy consumed in disposal of the building at the end of its life). Whilst a great deal of consideration is given to sustainability in terms of reducing the use of operational energy in buildings by, for example, increasing thermal insulation, the bigger picture is often overlooked. Loss of historic buildings and their replacement with new buildings has a considerable impact in terms of embodied and demolition energy.



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Heritage and Sustainability

- Maintenance and repair is an unrecognised energy efficiency measure – we need policies that acknowledge the value of repair and maintenance in order to meet net zero (poorly maintained buildings are less energy efficient). Maintenance also enables reuse while repair minimises the requirement for new materials reducing carbon emissions over the long term.
- Traditional methods and materials are essential for maintenance, repair and reuse of existing buildings but we can also learn from traditional methods which are often low carbon and use natural materials. Investing in skills in this area supports local jobs as well as improving resilience of places to climate challenges and reducing carbon.



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Heritage and Sustainability

Every building is different due to its location, orientation, design, construction, the way it is used, managed and maintained. All these factors influence energy use and the effectiveness of energy saving measures.

Why do older buildings need a special approach? Most modern buildings depend on impermeable barriers to control the movement of moisture and air through the building fabric. In contrast, traditional forms of building construction take up moisture from their surroundings and release it according to environmental conditions. Buildings of traditional construction also tend to have greater thermal inertia than their modern counterparts – they heat up and cool down more slowly. This ability to ‘buffer’ moisture and heat helps to even out fluctuations in humidity and temperature

The interrelationship between heat and moisture in buildings is complex. In a well-maintained building that is adequately heated and ventilated, the daily and seasonal cycles of wetting and drying, heating and cooling, balance out. However, the equilibrium may be adversely affected when changes to building fabric, heating or ventilation are made to increase energy efficiency. This can lead to problems of moisture accumulation, overheating and fabric damage. Occupants may also experience ill health due to poor indoor air quality.



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Planning Changes

Thus, when planning energy efficiency improvements, it is important to understand the way a building is performing as an integrated environmental system. In addition, older buildings are part of our evolving cultural heritage, reflecting the nature and history both of the communities that created them and those who followed. They add distinctiveness, meaning, and quality to the places people inhabit, and provide a sense of continuity and identity. When attempting to make such buildings more energy efficient a special approach is needed to ensure these values are sustained for future generations.

Assessing the true sustainability of buildings involves looking at not just their heating costs but also the resources they consume throughout their whole lives. This includes the energy used in the manufacture (‘embodied energy’) and disposal of their components.

Old (pre-c1919) buildings are often constructed from materials with lower embodied energy than new ones. Components frequently also have longer lifespans and are easier to repair than their modern counterparts. Additionally, older buildings not uncommonly possess features conducive to good energy efficiency (such as thatched roofs, thick walls able to retain heat and release it gradually, and windows arranged to maximise daylight but minimise heat loss). Many old buildings adapt well to modern living requirements and are constructed of lime mortar and other materials that can be easily recycled.

The fundamental advice for anyone who cares for an old building is always to maintain it well and, where required, repair or upgrade its components using appropriate materials and techniques rather than replacing them. Misguided work may not only compromise the special interest of an old building but save little, if any, energy.

Planning Changes

Instead of adopting a simple, blanket approach, such as replacing all old windows with double-glazed units, consider better-informed, targeted measures that accurately identify essential work. For example, air tightness tests by a suitable specialist can establish where heat really is escaping from a building and thereby pinpoint the areas that would benefit most from draughtproofing. Thermal imaging can be used either with or without air tightness tests to identify areas of heat loss.

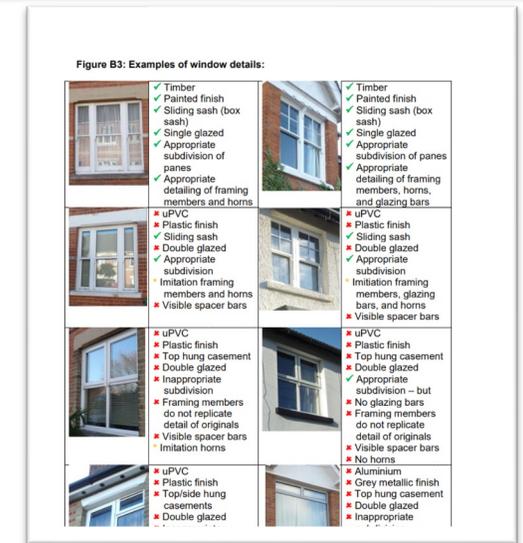
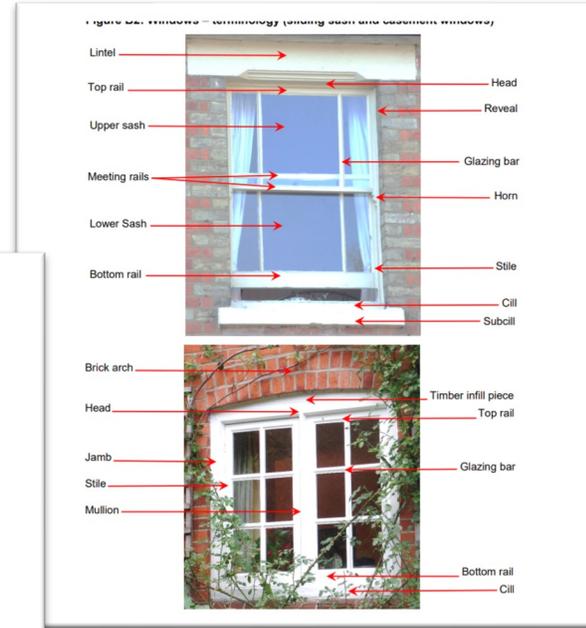
Even if they are identified as a source of heat leakage, the replacement of old single-glazed windows that perhaps only need a little repair with new double-glazing that has a short, 30-year life (or less in many cases) is short-sighted – the embodied energy and lifespan of the new units negates the energy saving made while they are in service.

With all work to an old building, use compatible methods and materials – not just standard solutions that may work for more modern buildings. Most pre-1919 houses (including those that are unlisted) need to ‘breathe’. They are usually built of permeable, porous materials, which are often lime- or earth-based. Unlike modern buildings that depend upon cavities, barriers and membranes to keep water out, old buildings permit moisture to be absorbed by the fabric but evaporate back out – the ‘raincoat’ and ‘overcoat’ effects respectively. Well-intended but ill-advised energy efficiency measures, such as covering walls with impermeable materials or restricting ventilation too much, may cause condensation, promote rot and aggravate human health problems, including asthma.

Heritage and Sustainability

Windows and doors often make an important contribution to the significance of a heritage asset and/or to the ability to appreciate significance. Windows and doors may be part of the historic fabric of a heritage asset. Further, the fenestration (i.e. the arrangement and design of openings in a building, and the design of components within those openings) is an important and integrated part of the design of a building in that it has a major impact on its appearance, thereby affecting the character and appearance of the area in which it is located. Issues relating to windows and doors therefore warrant particular attention in the assessment of proposals which affect heritage assets

The BDBC Heritage SPD includes a whole section covering the replacement of windows and doors in historic buildings.



Heritage and Sustainability

Principle WD01 – Repair and replacement of windows and doors which make a positive contribution to the character and appearance of a conservation area and/or which are part of a listed building

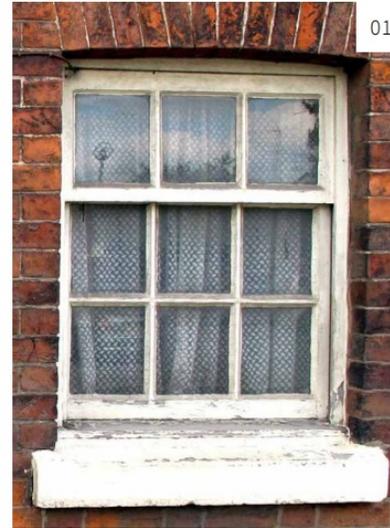
- a) *In accordance with Policies LB01 and CA01 of the main document of this SPD, where the replacement of windows and doors in a conservation area is subject to planning controls:*
- *windows and doors which make a positive contribution to the character and appearance of a conservation area, and*
 - *windows and doors which contribute to the significance of a listed building or of a conservation area or to the ability to appreciate that significance*

should be retained and repaired rather than replaced, unless it has been clearly demonstrated that they are beyond repair;

- b) *Where it has been demonstrated that windows and doors described at a) above are beyond repair, such components should normally be replaced on a like for like basis in terms of size, proportions, subdivision, opening mechanisms, details (such as section profiles of framing members and glazing bars), glazing, materials and finishes. Single-glazing should generally be replaced with double-glazing*

Principle WD02 – Replacement windows and doors in conservation areas: materials, finishes and details

- a) *In respect of the replacement of windows and doors in conservation areas which is subject to planning controls, windows and doors which replace components which do not make a positive contribution to the character and appearance of the conservation area should preserve or enhance that character and appearance. The Council will encourage replacement or alterations which constitute an improvement in terms of impact on the character and appearance of the conservation area;*
- b) *Materials, finishes and details used should be of a high quality and should respond to context, complementing each other, the building to which the installation relates, and the wider locality*



Harm

“Change for the worse, here primarily referring to the effect of inappropriate interventions on the heritage values of a place.”

Planning Practice Guidance:

Where potential harm to designated heritage assets is identified, it needs to be categorised as either less than substantial harm or substantial harm (which includes total loss) in order to identify which policies in the [National Planning Policy Framework \(paragraphs 194 to 196\)](#) apply.

Within each category of harm (which category applies should be explicitly identified), the extent of the harm may vary and should be clearly articulated.

Whether a proposal causes substantial harm will be a judgment for the decision-maker, having regard to the circumstances of the case and the policy in the National Planning Policy Framework. In general terms, substantial harm is a high test, so it may not arise in many cases. For example, in determining whether works to a listed building constitute substantial harm, an important consideration would be whether the adverse impact seriously affects a key element of its special architectural or historic interest. It is the degree of harm to the asset’s significance rather than the scale of the development that is to be assessed. The harm may arise from works to the asset or from development within its setting.

Harm

“Change for the worse, here primarily referring to the effect of inappropriate interventions on the heritage values of a place.”

Planning Practice Guidance:

While the impact of total destruction is obvious, partial destruction is likely to have a considerable impact but, depending on the circumstances, it may still be less than substantial harm or conceivably not harmful at all, for example, when removing later additions to historic buildings where those additions are inappropriate and harm the buildings’ significance. Similarly, works that are moderate or minor in scale are likely to cause less than substantial harm or no harm at all. However, even minor works have the potential to cause substantial harm, depending on the nature of their impact on the asset and its setting.

The National Planning Policy Framework confirms that when considering the impact of a proposed development on the significance of a designated heritage asset, **great weight should be given to the asset’s conservation** (and the more important the asset, the greater the weight should be). It also makes clear that any harm to a designated heritage asset requires clear and convincing justification and sets out certain assets in respect of which harm should be exceptional/wholly exceptional.

Making a Decision

Any decision – be it concerned with the historic environment or not – needs to be informed. It needs to follow – comply with – the relevant legislation, policy and guidance.

- Comply with the legislation
- Adhere to the policies
- Follow the guidance
- Is there harm? This must be outweighed by the public benefits.
- In most cases a solution can be found



Questions?



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