Appendix 5

South Cambridgeshire District Council

Local Development Framework

Listed Buildings: Works to or affecting the setting of

Supplementary Planning Document

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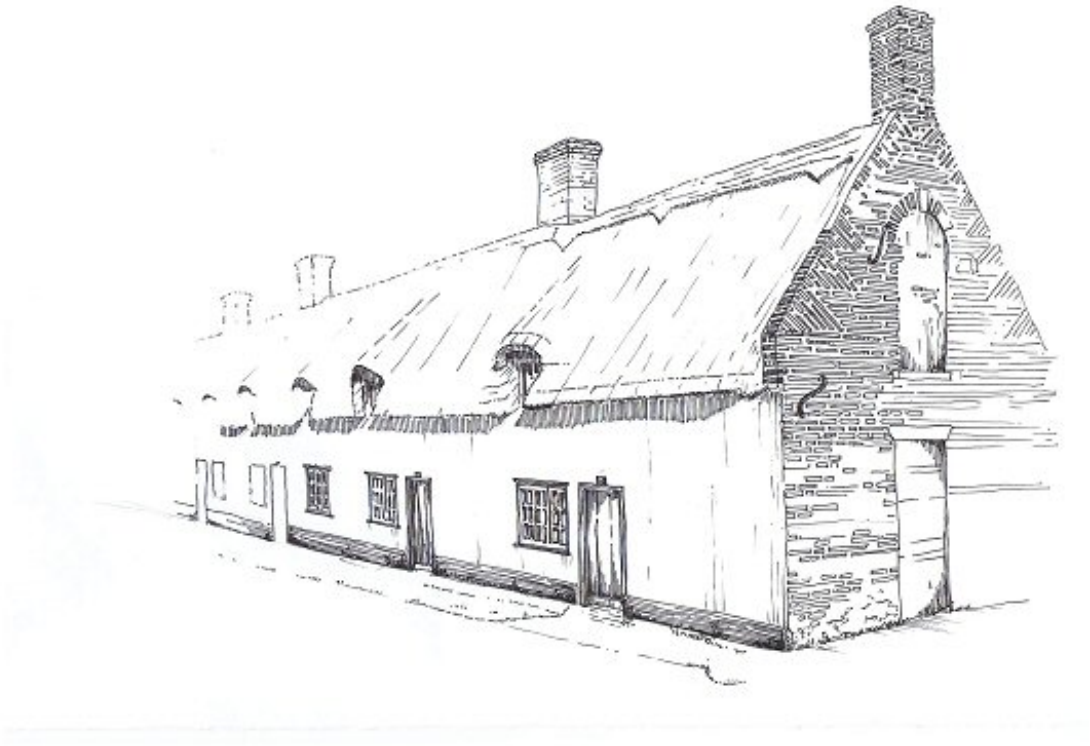

18th Century Low Row Cottage, Boxworth
Richard Donoyou

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CONTENTS

PART I:
LEGISLATION AND GENERAL PRINCIPLES FOR LISTED BUILDINGS

19th Century Fen Cottage
Richard Donoyou

CHAPTER 1

INTRODUCTION TO THE SUPPLEMENTARY PLANNING DOCUMENT AND LEGISLATIVE POLICY

1.1 This South Cambridgeshire District Council (SCDC) Supplementary Planning Document (SPD) on *Listed Buildings: Works to or affecting the setting of* forms part of the South Cambridgeshire Local Development Framework (LDF).

1.2 The SPD expands on district-wide policies in the Development Control Policies Development Plan Document (DPD) adopted July 2007 and policies in individual Area Action Plans for major developments that may vary from the district-wide policies. It provides additional details on how they will be implemented. Policies seek to ensure that Listed Building issues are adequately addressed throughout the development process.

1.3 The policy builds on National legislation, Planning (Listed Buildings and Conservation Areas) Act 1990 and on Planning Policy Guidance (PPG) for Listed Buildings as set out in PPG15: Planning and the Historic Environment (September 1994).

1.4 The **Heritage Protection Act**, when passed as a bill, will introduce changes to the way the historic environment is protected in England when it is implemented. This will include the streamlining of the 'listing' process to combine Listed Buildings and Scheduled Ancient Monuments, which will be known collectively as 'Heritage Assets'. The management of all Heritage Assets will be passed to local authorities.

1.5 A new Planning Policy Statement (PPS) to support the Heritage Protection legislation will replace *Planning Policy Guidance notes 15: Planning and the Historic Environment*, and *16: Archaeology and Planning*. At such time this SPD will be updated.

1.6 This document provides broad guidance on Listed Buildings with regards to South Cambridgeshire District Council policies. For example, it covers general approaches, typical works and when Listed Building Consent is likely to be required. This document cannot, however, be comprehensive and address every possible type of situation. The best advice is to contact the Council with queries regarding any of the information contained herein.

1.7 This document specifically applies to Listed Buildings, but much of the guidance can also apply to unlisted historic buildings that are of architectural or historic interest.

PURPOSE

1.8 The aim of this Supplementary Planning Document is to provide additional advice and guidance on alterations affecting Listed Buildings within South Cambridgeshire

and to expand on the broad policies set out in the Development Control Policies (DPD); Policy CH/3 Listed Buildings and Policy CH/4 Development within the curtilage or setting of a Listed Building.

1.9 Specific objectives of this document are to:

- Assist applicants' and agents' understanding of whether Listed Building Consent is required to undertake proposed works;
- Assist applicants' and agents' understanding of the local historic context, help identify features of importance and ensure that proposed works to Listed Buildings are carefully considered and appropriately designed to protect and, where possible, enhance their character, appearance, architectural interest or setting;
- Assist applicants' and agents' to gain Listed Building Consent and / or Planning permission quickly by informing them of what information is required to accompany applications, to justify their proposals and to demonstrate what impact the proposals may have on the character or setting of a Listed Building;
- Ensure that minor repairs and works, which require Listed Building Consent, are undertaken in an appropriate manner.

SOUTH CAMBRIDGESHIRE LDF POLICY

1.10 Development proposals in or affecting the setting of Listed Buildings will be controlled by the following policies in the Development Control Policies (DCP):

POLICY CH/3 Listed Buildings

Applications for Planning permission and / or Listed Building Consent (including applications for alterations, extensions, change or use or demolition of Listed Buildings) will be determined in accordance with legislative provisions and national policy (currently PPG15). In assessing such applications the District Council will adopt a presumption in favour of the retention and preservation of local materials and details on Listed Buildings in the district.

POLICY CH/4 Development within the Curtilage or Setting of a Listed Building

Planning permission will not be granted for development, which would adversely affect the curtilage or wider setting of a Listed Building. Proposals must provide clear illustrative and technical material to allow that impact to be properly assessed.

1.11 When considering planning applications for developments affecting Listed Buildings, PPG15 offers the following guidance:

Paragraph 3.4 of PPG15 states: *'Applicants for Listed Building Consent must be able to justify their proposals. They will need to show why works that would affect the character of a Listed Building are desirable or necessary. They should provide the local planning authority with full information, to enable them to assess the likely impact of their proposals on the special architectural of historic interest of the building and on its setting.'*

Paragraph 3.5 of PPG15 reinforces this and states: *'the issues that are generally relevant to the consideration of all Listed Building Consent applications are:*

i. *the importance of the building, its intrinsic architectural and historic interest and rarity, in both national and local terms;*

ii. *the particular physical features of the building (which may include its design, plan, materials or location) which justify its inclusion in the list: list descriptions may draw attention to features of particular interest or value, but they are not exhaustive and other features of importance (e.g. interiors) may come to light after the building's inclusion in the list;*

iii. *the building's setting and its contribution to the local scene, which may be very important, e.g. Where it forms an element in a group, park, garden or other townscape or landscape, or where it shares particular architectural forms or details with other buildings nearby;*

iv. *the extent to which the proposed works would bring substantial benefits for the community, in particular by contributing to the economic regeneration of the area or the enhancement of its environment (including other Listed Buildings).'*

1.12 The important principles to emphasise here are the terms - **justify, desirable, necessary** and **impact**, which will be discussed in more detail later on in this document.

1.13 Alterations affecting Listed Buildings include:

- Alterations - both internal and external
- Extensions
- Change of use of Listed Buildings
- Demolition of Listed Buildings
- Development within the curtilage (land) or setting of Listed Buildings

- Development to curtilage Listed Buildings or structures (dating prior to 1948)

1.14 The Council supports the concept of sustainable development, as Section 1.3 of PPG15 states:

> *The Government has committed itself to the concept of sustainable development - of not sacrificing what future generations will value for the sake of short-term and often illusory gains. This approach is set out in Sustainable Development: The UK Strategy. It is also a key element of the development plan system, as set out in PPG 12. This commitment has particular relevance to the preservation of the historic environment, which by its nature is irreplaceable. Yet the historic environment of England is all pervasive, and it cannot in practice be preserved unchanged. We must ensure that the means are available to identify what is special in the historic environment; to define, through the development plan system its capacity for change; and, when proposals for new development come forward, to assess their impact on the historic environment and give it full weight, alongside other considerations.*

1.15 In considering applications for such developments, the District Council will seek to ensure that the development will not harm the architectural or historic character and appearance of the Listed Building. Many Listed Buildings are also situated within Conservation Areas, and developments affecting these Listed Buildings or their setting will also need to comply with the policies set out in the separate SPD on **Development Affecting Conservation Areas**.

1.16 The District Council has adopted as Council Policy a district-wide **Design Guide** that contains relevant guidance on design issues. This is due to be reviewed and updated prior to adoption as an SPD in its own right. The Design Guide deals with historic village development, materials, design and tradition throughout the area of South Cambridgeshire. It is a valuable resource when proposals for change are being considered.

1.17 The Council recommends that all owners and agents become familiar with the latest National legislation and local policies. This should include amendments to Permitted Development (PD) Rights. Works to the Listed Building may require Planning permission as well as Listed Building Consent, whilst works (new freestanding development) within the curtilage (land) of the Listed Building will require just Planning permission. Contact the Council to discuss the restrictions of PD Rights on Listed Buildings.

1.18 Whilst this document has attempted to provide a broad guidance on Listed Buildings with regard to South Cambridgeshire District Council policies, it is by no means comprehensive. The best advice is to contact the Council with queries regarding any of the information contained herein.

CHAPTER 2

BUILDINGS OF SPECIAL ARCHITECTURAL OR HISTORIC INTEREST

CONTEXT

2.1 South Cambridgeshire is an area noted for the quality of its rural landscape, which has had a strong influence on pattern of development within villages and the local vernacular architecture. The extent of surviving historic properties is a particularly distinctive feature of the district's character and it is generally agreed that appropriate efforts should be made to conserve this valuable part of our built heritage.

2.2 Man has shaped the natural environment, and key elements such as veteran trees, ancient and enclosure hedgerows, and historic parks and gardens, have heritage value. Historic buildings are closely linked to the natural environment. For example, local wheat straw was grown for thatch and woodlands were managed to supply different shapes and sizes of building timbers. As a rural district, the countryside and its activities are particularly strong influences on South Cambridgeshire's settlements and buildings.

2.3 South Cambridgeshire's historic settlements are both linear and nucleated in form and some centre around the remains of large village greens. The best of these greens are at Barrington and Eltisley but others exist at Hardwick and Harston, whilst that at Great Shelford has been infilled by development.

2.4 Buildings are characterised by the diversity of the building materials available as a result of the geology of the area and include brick, clay tiles, flint, timber, wattle and daub, clunch and claybat.

2.5 Farmsteads, maltings, mills and other buildings show close connection with agriculture and food processing. Historic map evidence reveals the loss of many traditional orchards and market gardens that supplied produce to the London markets as well as the former Orchard Jam Factory at Histon.

2.6 More recent historic development includes the wartime airfields at Bourn, and Waterbeach, that at Duxford has been nationally recognised for its almost complete collection of buildings. Oakington airfield is proposed for the site of the new town of Northstowe, which will be the third new settlement constructed in South Cambridgeshire following on from Bar Hill (designed in the 1960s on the Radburn principle) and the 1990s development of Cambourne a group of hamlets.

2.7 At the centre of most of the 102 settlements stands the Parish Church, which encompasses a wide variety of styles of architecture, as they have been altered over the intervening centuries. Some, as at Bartlow, Ickleton, and Willingham contain medieval wall paintings, whilst others have exceptional interior fittings.

2.8 The district benefits from a series of country houses, some still in single residential occupation whilst others have been converted to corporate headquarters. Those of national importance include Wimpole Hall (National Trust) and Sawston Hall.

2.9 Several modern buildings in the area are also worthy of mention: Impington Village College (Gropius and Fry), The PAT Centre in Melbourn (Piano and Rogers), Napp Pharmaceuticals in Milton (Arthur Erickson), a modern Country House -Townsend Springs in Thriplow for Lord Henry Walston (Sir Leslie Martin) and a family home Meunier House in Caldecote (John Meunier).

2.10 While parts of the historic environment such as Registered Historic Parks and Gardens and Scheduled Ancient Monuments are formally designated, many parts are not (including areas of nationally important archaeology). Buildings and structures of special architectural or historic interest are designated as Listed Buildings, but many other buildings also have significant interest and make an important contribution to our cultural heritage.

2.11 The Council continues to adopt a positive and pro-active approach to its environmental conservation responsibilities. However, the pace of change in South Cambridgeshire is significant and has potentially serious implications for the district's heritage assets, not least the local vernacular architecture. The challenge is to plan and manage this change, in order to maintain the best and most significant components of the heritage resource, whilst enabling both buildings and areas to evolve.

WHAT IS A LISTED BUILDING?

2.12 Section 1 of the Planning (Listed Buildings and Conservation Areas) Act 1990 (the Act) imposes a duty on the Secretary of State to make a list or lists of buildings of special architectural or historic interest as a guide to the planning authorities when carrying out their planning functions. The planning system is designed to regulate the development and use of land in the public's interest. The designation of historic sites enables the planning system to protect them, through the complementary system of Listed Building Consent. For more information, refer to Communities and Local Government Circular 01/2007; *Revisions to Principles of Selection for Listed Buildings*.

2.13 A **'Listed Building'** is a building, object or structure that has been judged to be of national historical or architectural interest. It is included on a register called the Statutory List of Buildings of Architectural or Historic Interest, held by the Department of Culture, Media and Sport (Since 1 April 2005 English Heritage has been responsible for the administration of the listing system.) Listing a building is a legal procedure, intended to protect the Nation's built architectural and historic heritage. When a building is Listed, it has statutory protection and is included on a list of buildings of 'Special Architectural or Historic Interest' compiled by the Secretary of State.

2.14 The primary National legislation and policy that focuses on Listed Buildings is the *Planning (Listed Buildings and Conservation Areas) Act 1990* and *Planning Policy Guidance 15* (PPG15).

2.15 The **Statutory List** includes a description of each building, which refers to some, but not necessarily all, important features of a historic building. This is for identification purposes only; protection covers the entire building and any object or structure fixed to it or within the boundaries of the building. Irrespective of a building's designated grade, every part the building is Listed, including the interior and any later alterations or additions. In addition, any building or structure within the curtilage (land) of the Listed Building, which although not fixed to the building, forms part of the land and has done so since before 1 July 1948, are treated as part of the Listed Building. Refer to PPG15, Section 6.19 for further information.

2.16 Buildings can be selected because of their architectural interest, historic interest, and historical association or for group value. Listed Buildings are graded as follows:

- **Grade I**: buildings of exceptional interest (approx 2.5% of all Listed Buildings)
- **Grade II***: buildings that are particularly important (approx 5.5% of all Listed Buildings)
- **Grade II**: buildings that are of special interest (approx 92% of all Listed Buildings)

The older a building is, and the fewer the surviving examples of its kind, the more likely it is to be Listed. The selection criteria for more recent buildings are more stringent.

2.17 The main criteria used are:

- Architectural interest: buildings, which are nationally important for the interest of their architectural design, decoration and craftsmanship; also important examples of particular building types and techniques.
- Historic interest: this includes buildings, which illustrate important aspects of the nation's social, economic, cultural or military history.
- Close historical association with nationally important buildings or events.
- Group value, especially where buildings are part of an important architectural or historic group or are a fine example of planning (such as squares, terraces and model villages)

Refer to English Heritage's, *Principles of Selection for Designating Buildings*, for more information on Listing of buildings.

CURTILAGE LISTED

2.18 The term **'Curtilage'** is used to describe the *property or land* associated with a Listed Building and includes any buildings or structures contained within the boundaries of the property. The modern boundaries may differ from the historic boundaries, which define the curtilage. Determining the curtilage of a Listed Building is not always a simple matter. Changes in ownership after listing are not relevant. Section 3.34 of PPG15 states:

2.19 Any structures within this curtilage built before 1948 are called **Curtilage Listed**. Curtilage Listed status requires the structure to be considered in the same manner as the host Listed Building. The Town and Country Planning Act 1990 defines Curtilage Listed as when:

> *'… includes 'any object or structure within the curtilage of the building which, although not fixed to the building, forms part of the land and has done so since before 1 July 1948'.*

Changes in ownership after listing are not relevant. Section 3.34 of PPG15 states:

> *The Courts have held that for a structure or building within the curtilage of a listed building to be part of a listed building it must be ancillary to the principal building, that is it must have served the purposes of the principal building at the date of listing, or at a recent time before the date of listing, in a necessary or reasonably useful way and must not be historically an independent building.*

2.20 Consideration should be given to the following criteria when assessing whether the building is Curtilage Listed:

- the historical independence of the building;
- the physical layout of the principal building and other buildings;
- the ownership of the buildings now and at the time of listing;
- whether the structure forms part of the land;
- the use and function of the buildings, and whether a building is ancillary or subordinate

SETTING OF A LISTED BUILDING

2.21 Sections 16 and 66 of The Town and Country Planning Act 1990 state:

> *Authorities considering applications for Planning permission or listed building consent for works which affect a listed building to have special regard to certain matters, including the desirability of preserving the setting of the building. The setting is often an essential part of the building's character, especially if a garden or grounds have been laid out to complement its design or function. Also, the economic viability as well as*

the character of historic buildings may suffer and they can be robbed of much of their interest, and of the contribution they make to townscape or the countryside, if they become isolated from their surroundings, eg by new traffic routes, car parks, or other development.

LISTED BUILDING CONSENT AND PLANNING PERMISSION

2.22 Most works to a Listed Building will require Listed Building Consent. Some minor repairs may not. Please refer to Appendix I for more information about what may or may not need formal consent.

2.23 In addition, some works may also require Planning Permission, usually when adding volume to the Listed Building, changing the use or significantly altering the appearance.

2.24 Refer to the following website for more information on the changes, www.planning-applications.co.uk or www.planningportal.gov.uk.

2.25 The District Council's Development Control Planning Service or the Conservation and Design Section are more than happy to give advice and guidance.

CHAPTER 3

CARING FOR LISTED BUILDINGS

CARING FOR LISTED BUILDINGS

3.1 Every owner of a historic building should strive to care for it as these buildings are a finite and irreplaceable resource. If a building is Listed this duty of care should reflect its special interest and national importance. Owners of Listed Buildings are in reality guardians of history, caring for and passing on a building over the years.

3.2 Many Listed Buildings have survived for hundreds of years, are still performing well and are structurally sound. A conservative approach to repairs and alterations to historic building fabric should be taken. Any proposals for alterations are considered on the merits of the individual scheme put forward.

3.3 South Cambridgeshire District Council receives guidance and advice from the Conservation and Design Service and English Heritage, the Society for the Protection of Ancient Buildings (SPAB) and the Commission for Architecture and the Built Environment (CABE) and Cambridgeshire County Council's Historic Environment Team. The Council shares this advice with owners, agents and building professionals.

3.4 Recent guidance from English Heritage, *Conservation Principles; Policies and Guidance for the Sustainable Management of the Historic Environment,* outlines key principles that should be considered when proposing works to a Listed Building.

3.5 It is the responsibility of the Council to promote the best solutions for the building to ensure its longevity and sustainability. The officers have a duty of care to every Listed Building and their job is to manage change over time.

MAINTAINING LISTED BUILDINGS

3.6 Every building requires routine maintenance, which often prevents more serious problems from occurring and reduces decay. It will help to retain the building's value, limit the need for extensive and expensive repairs, and safeguard the building's future. Regular maintenance also contributes to increasing the quality of life and enjoyment of a buildings occupant.

3.7 For further information and advice on maintenance, refer to the Society for the Protection of Ancient Buildings (SPAB) website. The section, *Maintain your building*, provides valuable advice on the basics of maintenance and *Stitch in Time*, co-written with the Institute of Historic Building Conservation (IHBC).

REPAIRING LISTED BUILDINGS

3.8 "Like-for-like" repairs match existing methods and materials. However, the concept of ''like-for-like'' repairs is only applicable if the existing materials are traditional and historic. Many buildings have had repairs or alterations carried out using modern materials and methods (often before the building was Listed and works were controlled), inappropriate to an historic structure and such ''like-for-like'' repairs would not be appropriate.

3.9 There is a fine line between the level of work considered to be a repair, which will not require formal Listed Building Consent and work that does. Only small areas of minor repairs can be carried out without the need for formal consent. However, contact the Council to discuss any works prior to carrying them out and whether or not formal consent might be required.

3.10 Another principle of repair is that it should be the minimum necessary and involve the least intervention and loss of or disruption to the historic fabric. Repair first and replace only if necessary (replacement will always require formal consent).

CHAPTER 4

CHANGES AFFECTING LISTED BUILDINGS

ALTERATIONS TO LISTED BUILDINGS

4.1 The character of some Listed buildings will be harmed by even a very small amount of alteration or extension. Other Listed buildings are more capable of change while still retaining their character and special historic interest.

4.2 Paragraph 3.13 of PPG15 states: *'Many Listed Buildings can sustain some degree of sensitive alteration or extension to accommodate continuing or new uses.'* However, PPG15 also mentions*: 'Some Listed Buildings are the subject of successive applications for alteration or extension; in such cases it needs to be borne in mind that minor works of indifferent quality, which may seem individually of little importance, can cumulatively be very destructive of a building's special interest.'*

4.3 However, every building has a **finite capacity** for alteration and extension; cumulative works can have a negative impact and harm the setting or character of the Listed Building.

4.4 Key principles of alterations and repairs to a Listed Building:

- **Necessity:** replace only is necessary, sympathetic alterations in relation to the buildings age and character.
- **Honesty**: allow the works to be 'of their time' and allowing the building's history and evolution to be evident.
- **Reversibility**: repairs and alterations that can be reversed later, perhaps when technology or investigative techniques have advanced to allow a more appropriate resolution.
- **Champion good design**: it is the responsibility of the Council to champion good design, appropriate methods and materials. The Council always seek to improve and enhance the character and setting of any Listed Building.

4.5 PPG15 states that any proposal for alterations to a Listed Building should be *justified* in why the works are ***necessary*** or ***desirable***. The necessity or desirability should be in terms of the building itself over the longer term, not the current owner.

4.6 Alterations, which affect the character or appearance of a Listed Building, will almost always require Listed Building Consent. The term 'alteration' can include everything from changing a window to altering the building's internal layout or floor plan. Alterations will need to be justified and accord with National legislation,

Guidance and local policy requirements. In addition, it is recommended that a preliminary informal consultation take place with the Conservation and Design Service within South Cambridgeshire District Council. This will allow a process of consideration and feedback from the team as to whether or not the proposal would be supported by officers if an application was submitted or what amendments might be appropriate to obtain that support. Considered and informed documentation submitted during early consultations will afford officers the opportunity to understand and comment constructively on the proposal; when the application is submitted it should then be processed relatively smoothly.

4.7 Investigative opening up works may be supported, but only if the Council is made aware of what works are proposed, how the works are to be carried out and what evidence exists to support that opening up. The Council ***must*** be notified ***before*** any works take place and a site visit may be required before permission is granted to carry out such investigations.

4.8 One example is when a Listed Building has been previously (before the building was Listed) covered in a cementitious render and the intent is to remove and replace with an appropriate lime render to allow the building to breathe. It might be acceptable to remove a small area to determine the quality of the materials behind and to determine if the removal of the render is possible without substantially damaging the historic fabric. Or when there is a question about what might exist behind recent wall covering, a modern fireplace or any query about what cannot be seen, the Council may support investigative works.

EXTENSIONS TO LISTED BUILDINGS

4.9 Extensions to a Listed Building will require formal Listed Building Consent and may also require Planning permission.

4.10 Section 3.13 of PPG15 states that every building has a finite capacity for extension. Therefore, when considering the purchase of a Listed Building, it is better to determine if the existing building meets the current needs as opposed to assuming that the building could be extended further. The individual needs of a particular owner should not impose on the needs of the building. In certain circumstances the purchase of a Listed Building may not be appropriate if it does not already offer the amount of accommodation required. There will be cases when further extensions to accommodate the changing needs of an existing owner will also not be considered desirable.

4.11 Extensions can significantly affect the character, appearance and setting of a Listed Building and the location, scale, form and massing is critical. Traditionally historic buildings were often extended by the addition of a modest lean-to on the rear or side elevation. Historically, there were occasions when two storey extensions were built.

4.12 The design of any extension will require careful consideration and should be subservient to the original Listed Building. An extension should be set back from the Listed Building to create a visual separation. It might be traditional in appearance or contemporary (though such an approach will need to be restrained so as not to 'draw the eye' away from the Listed Building) depending on the individual circumstances. Any proposal should retain the original uses and functions of the original historic dwelling. The reason for this is to ensure that the historic part of the building remains the focus.

4.13 Extensions should be kept to one or one and a half storeys in height in order to ensure the extension is both visually subservient and proportionate. Two-storey extensions will not generally be supported. Flat roofs are not historically appropriate to a Listed Building, nor are they recommended due to problems that can occur with rainwater disposal. The form of any extension should minimise the amount of historic fabric that will be covered up as a result.

4.14 The principle of any extension should be discussed with the historic building officer at the outset to ensure an appropriate solution can be agreed.

LOSS OF HISTORIC FABRIC

4.15 Loss of historic fabric is an important consideration when designing an extension and should be minimised by using existing openings where possible.

4.16 Any new openings will be reviewed to ensure that their impact on the Listed Building is minimised, sympathetic to the structure and appropriate to the overall design.

DEMOLITION OF LISTED BUILDINGS

Justification for demolition

4.17 Any proposal for the demolition of a Listed Building will need to have substantial justification, showing that the existing building is not capable of being repaired or reused. The complete demolition of a historic building is rarely necessary, especially if a building has been properly maintained. The Statutory Consultees will be consulted on any proposal for the demolition of a Listed Building.

4.18 It is also important to note that where consent is granted to demolish a Listed Building there is no presumption that a replacement structure would be approved. Any new development will be considered on its own merits within the context of the relevant Development Control Policies.

4.19 Section 3.17 of PPG15 states that consent should not be granted unless:

- All reasonable efforts have been made to sustain existing uses or find viable new uses, and these efforts have failed.

- That preservation in some form of charitable or community ownership is not possible.

- That redevelopment would produce substantial benefits for the community, which would decisively outweigh the loss resulting from demolition.

4.20 Section 3.19 of PPG15 states the following considerations should be addressed when proposing the demolition of a Listed Building:

- The condition of the building, the cost of repairing and maintaining it in relation to its importance and to the value derived from its continued use. Any such assessment should be based on consistent and long-term assumptions. In the rare cases where it is clear that a building has been deliberately neglected in the hope of obtaining consent for demolition, less weight should be given to the costs of repair.

- The adequacy of efforts made to retain the building in use. The Secretary of State would not expect Listed Building Consent to be granted for demolition unless the authority (or where appropriate the Secretary of State himself) is satisfied that real efforts have been made without success to continue the present use or to find compatible alternative uses for the building.

- The merits of alternative proposals for the site. Whilst these are a material consideration, the Secretaries of State take the view that subjective claim for the architectural merits of proposed replacement buildings should not in themselves be held to justify the demolition of any Listed Building. Even here, it will often be feasible to incorporate Listed Buildings within new development, and this option should be carefully considered: the challenge presented by retaining Listed Buildings can be a stimulus to imaginative new design to accommodate them.

4.21 Any application for the demolition of a Listed Building must include:

- A structural engineers report providing evidence that the building is incapable of being economically repaired.

- Clear and convincing evidence that all reasonable efforts have been made to sustain existing uses or find viable new uses, and these efforts have failed.

- That preservation in some form of charitable or community ownership is not possible or suitable.

- Or that redevelopment would produce substantial benefits for the community, which would decisively outweigh the loss resulting from demolition.

However, consent for demolition will not be given simply because redevelopment is economically more attractive to the developer than repair and re-use of a historic building.

4.22 The presumption is that the Listed Building will be retained.

Demolition of Curtilage Listed Building

4.23 A Curtilage Listed Building is any building or structure within the historic boundaries of the Listed Building that has a historic relationship to the Listed Building and was built before 1 July 1948. The Planning (Listed Building and Conservation Areas) Act 1990 confirms that a Curtilage Listed Buildings should be treated the same as Listed Buildings.

4.24 Any proposal for the demolition of a Curtilage Listed Building would be scrutinised using the criteria given for Listed Buildings above. There is a presumption that a Curtilage Listed structure, which makes a positive contribution to the setting of the Listed Building, will be retained.

4.25 Demolition of walls, gates or fences within the curtilage of a Listed Building may require Listed Building Consent. Contact the Council to discuss any proposal prior to carrying out any works.

The Shimizu Case

4.26 The Shimizu Case was a House of Lords judgement (1997) that defined demolition in respect of Listed Buildings. The judgement differentiated the definitions between 'demolition' and 'alteration' so that demolition now refers to only total demolition and does not include partial demolition, which is now considered an alteration. This has relevance as to how an application is described and considered.

CHANGE OF USE OF LISTED BUILDINGS

4.27 When a Listed Building or Curtilage Listed Building is redundant; the Council might support a change of use to enable the building to be brought back into use. However, the best use for any historic building is generally the use it was intended and built for. New uses may be inappropriate, due to potential loss of historic fabric or harm to the special character and appearance of the Listed Building. It may be appropriate to use the building for ancillary functions such as low-key storage.

4.28 A planning officer can offer more advice about change of use, as this is likely to require Planning permission. In considering Listed Building applications, implications including alterations to the plan form, introduction of new services and fire protection all need to be considered. The building should be capable of being converted into the new use without substantial extensions or modifications, especially if the change of use would require new openings, staircases, and substantial subdivisions to the historic floor plan or loss of historic fabric. Additional

information may be required to justify a change of use, such as evidence of the building's redundancy, financial evidence, structural reports, etc.

4.29 It is necessary for the requirements of the new use to be accommodated within the building without seriously compromising the architectural character and / or historic fabric. Issues may include the following:

- Fire & Safety: additional means of escape, protected stairs, upgrading of existing doors, partitions
- Physical barriers to access: thresholds, ramps, types of door furniture
- Sub-division of existing rooms/spaces: impact on cornicing, panelling, plan form
- Servicing: introduction of pipe work, electrical cabling, altering internal environment
- Floor loadings: strengthening existing floor structures
- Sound insulation: increased insulation requirements for floors, walls and glazing
- Thermal performance: increased insulation requirements for floors walls roofs and glazing

4.30 Can the requirements of the new use be accommodated without seriously compromising its setting? Issues may include the following:

- Increased car parking: location, surfacing, entrance / exit, sight lines
- Division of open spaces: building groups, farmyards
- Separation from any historically linked curtilage buildings
- Fragmentation of the long term management of the buildings
- Impact on standing or buried archaeological remains
- Hard and soft landscaping: character of existing landscaping
- Effect on the broader character of the Conservation Area

COMMERCIAL BUILDINGS

4.31 Listed Buildings, in particular dwellings, can be or have been converted to a variety of commercial uses including offices, surgeries and nursing homes. Planning permission will be required for a change of use and Listed Building Consent for any

alterations that affect the character and appearance of the Listed Building and are therefore unlikely to be supported.

4.32 Alterations required for the new use should be minimal and should respect the historic plan form. Removal of historic partition walls to create open plan offices would result in a significant loss of historic fabric. Existing historic features and fittings, such as fireplaces, cupboards and panelling should be retained.

4.33 Floor loadings can become an issue where an office or storage use is proposed and consideration should be given to what strengthening works would be required and if the work is appropriate. A Structural Engineer's report will be required to support an application and should detail what works are required and why.

4.34 The introduction of new services should form part of the Listed Building application and can cover: additional wiring, IT support, heating or cooling systems, modern technology and computer equipment, etc. These should be discreetly sited and respect the historic fabric. The impact of access points, fire and safety requirements should also be considered.

DEVELOPMENT WITHIN THE GROUNDS OF LISTED BUILDINGS

4.35 Development within the curtilage of a Listed Building will almost always require planning permission. The District Council will advise on permitted development. (Works such as extensions which affect the character of the Listed Building or Curtilage Listed Buildings are also likely to require Listed Building consent as described elsewhere in this document.)

4.36 Any development within the grounds of a Listed Building is likely to impact on the Listed Building and the design and location of new structures must be carefully considered. For example: a relatively large building might be out of proportion with and dominate a historic building; and a new structure built close to a Listed Building could hide or distract from it. New buildings should normally be subservient to the listed building and be sited some distance from it.

SETTING OF LISTED BUILDINGS

4.37 Decisions on Planning and Listed Building Consent applications need to consider their impact on the setting of listed buildings. The land and structures contained within the curtilage are likely to be an important part of that setting. For example, a principal building, and its grounds and ancillary structures, may all be part of an integrated design.

4.38 The setting can, however, extend much further than the curtilage and may often include land some distance from it. It includes landscapes, street scenes and layouts that are part of a building's context, and views to and from the Listed Building.

4.39 The setting may encompass a number of other properties. The setting of individual Listed Buildings very often owes its character to the harmony produced by a particular grouping of buildings (not necessarily all of great individual merit) and to the quality of the spaces created between them.

4.40 Where a Listed Building forms an important visual element in a street, consideration should be given to any development within the setting of the building. A proposed high or bulky building might also affect the setting of a Listed Building some distance away, or alter views of a historic skyline. In some cases, setting can only be defined by a historical assessment of a building's surroundings.

4.41 There is a presumption that the Council will resist any application that:

- Would dominate the Listed Building or its curtilage buildings in scale, form, massing or appearance,
- Would damage the context, attractiveness or viability of a Listed Building,
- Would harm the visual, character or morphological relationship between the building and its formal or natural landscape surroundings, or built surroundings
- Would damage archaeological remains (above or below ground) of importance unless some exceptional, overriding need can be demonstrated, in which case conditions may be applied to protect and preserve particular features or aspects of the archaeology
- Would impact on a Conservation Area

4.42 Sufficient justification and technical data is required for all listed building applications. There are national and local checklists which require particular documents to be submitted. If the information has not been submitted, it may not be formally registered and the additional information requested.

CHAPTER 5

BEST PRACTICE

GENERAL PRINCIPLES OF BEST PRACTICE

5.1 In the early stages of any proposals, it is important to seek advice from qualified professionals who have experience in dealing with historic buildings. These could include a chartered architect or surveyor, structural engineer, architectural historian, or a specialist craftsman, depending on the nature of the proposal.

5.2 In addition, any proposal should be based on a full understanding of the building and its development. Guidance from English Heritage's, *Informed Conservation*, outlines a procedure for carrying out this investigation and research. The Council's Historic Building Officer can provide additional resources and advice.

- Informed Conservation is about the contribution that understanding can make to the practical process of conserving historic buildings and their landscapes. Conservation involves managing change, and in order to manage change, it is vital to understand what matters and why.

- Understanding a building or landscape means 'reading' the fabric in order to analyse its construction, alteration and use through time, and then placing it in a wider context in order to assess its significance. This is a multi-disciplinary approach, which makes use of historical research, architectural and landscape history, measured survey and the archaeological analysis of fabric and research.

- Information should be tailored to the needs of the project. Not every project needs a fully detailed analysis. Sometimes a rapid overview of a site will be enough: and in other cases a good set of measured survey drawings and heritage statement are sufficient. A major project might benefit from a conservation plan. Informed Conservation sets out a process for assessing the impact and also defines 'stages' which can be used to match understanding to a particular project.

- All listed buildings, including non-listed older buildings, have potential to provide sites for various forms of wildlife. Breeding birds, such as house sparrows or swifts, may take up residence in the eaves of buildings, and gable ends or weatherboarding may provide suitable crevices for bats. It must be noted that certain species, such as bats, are fully protected in law and their presence is likely to have bearing on the determination of an application and possibly the timing of works. Applications may need to be supported by advance ecological survey information to allow potential wildlife impacts to be properly assessed. A license from Natural England may be required to allow lawful disturbance or destruction of certain habitats (within buildings). Further detail on the range of protected species, biodiversity

conservation measures and ecological survey seasons can be found in the SCDC Biodiversity SPD.

- Because there is no single word or academic discipline which describes the special skill of analysing a building and landscape for conservation purposes, the term **Conservation-based Research and Analysis (CoBRA)** has been used to refer to:

  The research, analysis, survey and investigation needed to understand the significance of a building and its landscape and thus inform decisions about repair, alteration, use and management.

5.3 Researching the history and evolution of the building and its context is essential to making informed decisions on the future of the property. The Cambridgeshire Collection at Cambridge Central Library has extensive archives including maps and photographs on the settlements within Cambridgeshire. Many villages have local history societies who can sometimes provide information, as can previous owners of the building. The Cambridgeshire Historic Environment Record, the Victorian County History (VCH) and West or Northeast volumes of the Royal Commission on Historic Monuments and the National Monuments Records are valuable resources.

USING AN EXPERIENCED PROFESSIONAL

5.4 The process of carrying out a project to a Listed Building for the first time may seem daunting. The District Council maintains lists of specialist professionals and services. These professionals have experience with historic buildings and have carried out work in the area to a satisfactory standard. The Council is not able to recommend a specific company, or individual, but can provide a copy of these lists upon request.

5.5 It is important to decide who will be managing the project. Professionals can assist with applying for Listed Building Consent, instruct and supervise the implementation of the works, manage contractors and discharge any associated conditions all of which can save time and money in the long run. These professionals will also take responsibility and liability for the work.

5.6 Professional organisations may offer a referral service or a list of local professionals in the area. For example, the Royal Institute of Chartered Surveyors (RICS) and the Royal Institute of British Architects (RIBA) will help identify an appropriate and experienced professional.

RECORDING

5.7 There are some occasions when it is necessary to make a historic record of part or all of a Listed Building. The material produced will provide a permanent record for the archives and should be in the correct format to be accepted. This will need to be carried out by a historic building specialist with the appropriate background and

will be required if substantial changes are agreed or if part or all of a building is to be demolished.

5.8 A copy of the record, included with the application, is retained by the District Council and copied to the County Record Office who maintains the archives. A copy should be sent to the Cambridgeshire Historic Environment Record. Records can provide information on construction, materials, age of particular sections, and the history of the evolution of the building.

5.9 Surveying and recording can also provide additional information and evidence when developing proposals, which can be used to better understand the building and assess its significance in order to put together an application for consent. Therefore, involving someone in the earliest stages is important. They may be required as part of a Planning application and to satisfy a condition or Section 106 agreement. The Historic Building Officer can advise on the type of record that is required.

5.10 There are different levels of recording, set out by English Heritage in *Understanding Historic Buildings: A guide to good recording practice*. The levels vary from a simple photographic survey of the building by an architectural historian to a written account of what exists to a comprehensive full-scale survey drawing, including sections, elevations, and floor plans. The level of recording is dependant upon the individual circumstances. In addition to being a valuable tool to understand a building, there are times when recording the building is a condition of approval on a Listed Building application.

5.11 Most records aiming at historical understanding will correspond broadly to one of four main levels of record. They range from Level 1, the simplest, consisting of photographs and brief notes, to Level 4, containing a full historical and architectural analysis, supported by a comprehensive drawn and photographic record. The benefits of these levels may be summarised as follows:

- Level 1 is essentially a **basic visual record**, supplemented by the minimum of information needed to identify the building's location, age and type. This is the simplest record, not normally an end in itself but contributing to a wider aim.

- This is a **descriptive record**, made in circumstances similar to those of Level 1 but when more information is needed. It may be made of a building, which is judged not to require any fuller record, or it may serve to gather data for a wider project.

- Level 3 is an **analytical record**, and will comprise an introductory description followed by a systematic account of the building's origins, development and use.

- Level 4 provides a **comprehensive analytical record** and is appropriate for buildings of special importance.

5.12 A project may also require archaeological works, and advice on this can be obtained from the Cambridgeshire County Council Historic Environment Team (HET). The related legislation on archaeology is contained within Planning Policy Guidance Note 16. Its aim is the protection, enhancement and preservation of sites of archaeological interest and of their settings. There may be a condition placed on a Listed Building Consent, which requires archaeological works to take place prior to works commencing, or possibly a watching brief, which provides for an archaeological professional to monitor works as they are being implemented. All archaeological works should follow a brief prepared by the HET and undertaken by a suitable archaeological professional working to the standards of the Institute for Archaeologists.

HERITAGE STATEMENT

5.13 One of the key components of any Listed Building application is the Heritage Statement, which forms part of the National requirements list and is mandatory. This statement allows an owner or agent the opportunity to become fully informed about the history and evolution of the building, which should inform any proposals. It is closely linked to the aims of Informed Conservation and the requirement to record discussed above. The statement will result in a written document outlining the following information:

- Historical research
- Fabric analysis
- Architectural investigation
- Examining surviving fittings and fixtures
- Exploratory works to enable a better understanding
- Analysis of decorative schemes, mortar analysis, paint analysis, etc.
- Dating of materials, for example timber or dendrochronology
- Archaeological investigation
- Architectural historical research
- Historic photographs

BEST PRACTICE KEY POINTS

5.14 The following points are important general considerations when proposing any works to a Listed Building:

- Repair first, replace only if justified and necessary
- Use tried and tested materials and methods
- Make additions reversible if possible
- Ensure the building is wind and weather tight to start
- Understand what makes the building significant
- Avoid being tempted to standardise or unify external appearance and treatment where the building clearly is of several historic phases and styles.
- Champion good design
- Carry out regular maintenance, which will prevent rapid deterioration and enable historic details to be conserved
- It is not about what you CAN see, but what you CANNOT see; investigative opening works may be appropriate
- ENJOY the investigating and researching to understand the building and its history
- Traditional methods and materials work in an entirely different way to modern materials and methods; and the two tend to conflict with one another
- Find the cause of the problem and address it, do not just cover up the symptoms
- Monitor concerns over a period of time during different climate periods to properly assess causes, do not be reactive, but proactive
- The simplest solution can sometimes be the best, but is not necessarily the cheapest or easiest.
- There is usually more than one solution to a problem, if necessary, get a second or third opinion (from a qualified experienced professional).

FIRE AND FLOOD PROTECTION AND DAMAGE

5.15 In respect of fire protection, this should be discussed with the Council. It is recommended that, where possible, all loft or attic spaces have smoke detectors and fire alarms installed.

5.16 It is always unfortunate when a building succumbs to a fire or flood, but when the building is of historic interest it is usually significantly destructive to the historic fabric. The South Cambridgeshire area contains significant numbers of Listed Buildings which have thatched roofs or are on low lying land. Thatch fires and damage to flooring are therefore potential risks, which can result in the permanent loss of features, materials and fittings. The Council will generally expect to see the existing building and features reinstated or repaired in a traditional manner though the opportunity might exist to replace inappropriate later alterations with improved designs.

CONSIDERATIONS WHEN PURCHASING A LISTED BUILDING

5.17 Estate agents and solicitors should be aware if a property is Listed or not. This is important information when considering purchasing a Listed Building. The Council's Historic Building Officer will discuss potential purchases in order to assess what the needs of the property and the potential owner might be.

5.18 It is important to carefully consider if an historic and Listed Building is right for you. For example, consider whether the building is large enough for your current and future needs. If not, is consent for extension or alteration likely to be granted. There will always be compromises with an older building, such as lower ceilings, draughts, uneven or undulating walls, floors or ceilings. However, these features contribute to the buildings history, charm and character, making it a building of special architectural significance.

5.19 Most historically and traditionally built buildings will show signs of age, have uneven areas, minor areas of damp, shallow foundations, etc. all of which should not be an immediate cause for concern. Traditionally built buildings were made with materials that could accommodate movement in the structure, being flexible to withstand settling of the ground and other movement. Most movement occurred within the first one hundred years and should not be a cause for concern. It is important to ensure that the building is still performing as it was designed to.

5.20 If there is significant interest in a particular building, the Conservation and Design Team may draft a list of key points and potential constraints for the building to give to the estate agent and prospective purchasers. Please contact the Council for more information.

HISTORIC BUILDING INSURANCE

5.21 There are insurance companies who specialise in insuring Listed Buildings, including thatched properties. The correct type of cover is important as rebuilding or replacing elements of historic buildings can be more costly as the work must be carried out using traditional methods and materials in most cases.

5.22 The Council does not recommend any particular company but does maintain a list that can be given out upon request.

CHAPTER 6

PROCESS OF GETTING LISTED BUILDING CONSENT

LISTED BUILDING CONSENT

6.1 Buildings that are Listed are protected by law. This does not mean that they can never be altered or demolished, but carrying out work without the appropriate consent is a criminal offence and may result in the prosecution of anyone involved. Listed Building Consent is required in order to carry out any works which will affect its special character as a building of architectural or historic interest. This will be necessary for any major works, and is likely to be needed for minor alterations and possibly even repairs depending upon the extent and type. Planning permission is likely to be necessary for a change of use of the property.

6.2 Depending upon the nature of the proposal, it is possible that the works may also require Planning permission. Where the proposal adds volume and mass to the building or makes other changes to the exterior Planning permission will also be required.

6.3 Local Planning Authorities must consult English Heritage and the six National Amenity Societies on any application involving works to a Grade I or Grade II* Listed Building. Additional organisations may be consulted depending upon the nature of the proposal and the site. The six main bodies are:

- Society for the Protection of Ancient Buildings
- Council for British Archaeology
- Georgian Group
- Twentieth Century Society
- Victorian Society
- Ancient Monuments Society

Additional organisations that may also be consulted include:

- Garden History Society
- Natural England

6.4 Once comments have been received from the consultees, the Council is required to forward all of the documentation, including the entire application, to the Government Office for the East of England for a final review. It is GO-East's responsibility to consider if the proposal can be determined under delegated

powers within the Council or if the application must be called in by the Secretary of State to review.

CONDITIONS ASSOCIATED WITH LISTED BUILDING CONSENT

6.5 If Listed Building Consent is approved, it will usually be **conditional** that further information has to be submitted and approved prior to works being undertaken or other requirements met which means **Listed Building Consent alone does not always grant permission to begin work** as conditions may need to be discharged first. It is essential that all of the conditions are formally discharged; if they are not, any works carried out are done so at the owner's own risk and may have to be removed or replaced if they do not meet the required standards. In addition, any works undertaken without formal consent are unauthorised, which constitutes a criminal offence.

6.6 Refer to Appendix 1 for detailed information about how to apply for Listed Building Consent and what supportive information is required.

BUILDING REGULATIONS AND LISTED BUILDINGS

6.7 As part of most Listed Building Consents, there may be a requirement to also seek Building Control approval. South Cambridgeshire District Council has an in-house Building Control Service that can provide advice and guidance on Building Regulations. However, any suitably qualified Building Control professional can be used.

6.8 Building Regulations were originally created to ensure the health and safety of people in and around buildings and more recently to provide accessible and thermally efficient buildings.

6.9 In certain areas, there may be some conflict between the aims of Listed Building legislation and Building Regulations and it is advisable to discuss any plans that may require a Building Regulations submission as early as possible with both parties. If any issues are raised at an early stage there is more flexibility to design a proposal that adequately considers both aspects.

6.10 Although the list is not exhaustive, early consideration should be given to any proposals that include means of escape from fire, glazing, thermal insulation, ventilation, alterations to floors, roofs, foundations or reinstatement of elements of an original building. There are three main sections of the Regulations that may differ from Listed Building principles: Part B - Fire Safety, Part L - Conservation of fuel and power and Part M - Access and use of buildings.

6.11 Flexible interpretation of the Regulations is needed when works include:

- Retention and upgrading of significant historic fabric.

- Restoration of the historic character of a building that has previously been altered inappropriately.

- Rebuilding of a former building (e.g. following a fire or filling a gap site in a terrace).

- Making provision for the historic fabric of the building to breathe to control moisture and potential long-term decay problems.

6.12 Historic Building and Building Control officers at the District Council aim to co-ordinate their work (though applicants will need to deal with both services). External Building Control officers, who may be less used to working with the Historic Buildings team, need to contact its officers when they get involved in a project.

6.13 Refer to English Heritage's guidance, *Building Regulations and Historic Buildings, 2004.*

Access to and use of buildings (DISABILITY DISCRIMINATION ACT) - PART M

6.14 The Disability Discrimination Act (DDA) was introduced in 1995 and updated in 2005 with the aim to facilitate equal access to services for all. The Act requires the provision to be reasonable and therefore the level of reasonable accessibility would vary according to the specific building and uses involved. Part M of the Building Regulations provides practical guidelines for the implementation of elements of the DDA.

6.15 The requirements are more stringent for new buildings, commercial buildings and buildings open to members of the public. In these cases, it is expected that at least the primary functions should be reasonably accessible to disabled people. Some flexibility may be necessary if the most accessible solution would be damaging to the character of a Listed Building, for instance by providing alternative facilities.

6.16 Any proposal to adapt a Listed Building to comply with the Regulations will require Listed Building Consent. If the building is Grade II* or Grade I, the proposal will be sent to the amenity societies and English Heritage. Any alterations will need to be carefully considered and take account of the historic and architectural significance of the building. Full details will therefore be required, including any structural works, signage associated with the access provision and the full extent of potential impact of the proposals on the interest of the Listed building, including to significant historic features such as mouldings, cornices, wall paintings or wall coverings. Employing a professional who understands the DDA and how it will impact on the Listed Building is important to ensure that any reasonable modifications are made sensitively and to minimise the loss of historic fabric.

6.17 Refer to English Heritage's guidance, *Easy Access to Historic Buildings, 1999.*

CHAPTER 7

GRANT AID AND LEGAL POWERS

GRANTS

7.1 South Cambridgeshire District Council has a limited grant budget each year to provide grants for particular works to historic buildings. The grants are carefully targeted and specific criteria exist to be eligible for a grant. Please contact the Council for more information. The grants encourage the repair of Listed Buildings through the use of appropriate local and traditional building materials and methods of high standards of craftsmanship. Repairs must preserve the historic or architectural interest of a property. Minor repair work, general maintenance and redecoration are not eligible.

7.2 The use of modern materials such as fibre cement slate or concrete tiles will not receive grant aid and their use on Listed Buildings will require Listed Building Consent. The Council will not normally grant aid second homes, even if they are rented out to tenants.

7.3 The grants are purely discretionary. Eligibility does not confer an automatic right to receive grant aid. The Council, under an agreed delegated procedure, can generally deal with grants. However for higher value grants above £25,000 authority must be sought from the Conservation Portfolio Holder or in some instances the Council's Cabinet. The amount of grant awarded is usually no less than 10% of the cost of eligible works and no more than 50%. In cases where the applicant is claiming hardship but is not on an income related benefit a "means test" may be carried out.

7.4 A specification and schedule of works will normally be required together with two competitive estimates from different craftsmen based on the works described. Contracts should not be signed before the grant application is determined as revised estimates may be required, or the grant offer may require a particular specification of works or a contractor with the appropriate skills to be used. Professional fees may be considered as part of the grant offer.

7.5 Grants may also be available from English Heritage, Heritage Lottery Fund and other sources for Listed Buildings. Advice is available from English Heritage, Heritage Lottery Fund and conservation websites and from South Cambridgeshire District Council.

UNAUTHORISED WORKS TO A LISTED BUILDING

7.6 It is a criminal offence under section 9 (1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 to carry out unauthorised works to a Listed Building and fines up to £20,000 can be imposed on any person involved. The Council will seek to prosecute anyone who undertakes works that damages or alters a Listed

Building without applying for Listed Building Consent. In addition, the concept of retrospective consent within the planning system does not apply to Listed Buildings. Works cannot be authorised but can be regularised, and the offence remains.

PROSECUTIONS

7.7 The Council has the power to prosecute anyone involved in undertaking works to a Listed Building without the benefit of consent. Sections 3.44 to 3.48 of PPG15 and the Planning (Listed Buildings and Conservation Areas) Act 1990, Chapter II, Section 7 and 9 deal with Listed Building Prosecutions:

Section 7, Restriction on works affecting Listed Buildings:
Subject to the following provisions of this Act, no person shall execute or cause to be executed any works for the demolition of a Listed Building or for its alteration or extension in any manner which would affect its character as a building of special architectural or historic interest, unless the works are authorised.

Section 9, Offences:
(1) If a person contravenes section 7 he shall be guilty of an offence.

(2) Without prejudice to subsection (1), if a person executing or causing to be executed any works in relation to a Listed Building under a Listed Building Consent fails to comply with any condition attached to the consent; he shall be guilty of an offence.

(3) In proceedings for an offence under this section it shall be a defence to prove the following matters—

(a) that works to the building were urgently necessary in the interests of safety or health or for the preservation of the building;

(b) that it was not practicable to secure safety or health or, as the case may be, the preservation of the building by works of repair or works for affording temporary support or shelter;

(c) that the works carried out were limited to the minimum measures immediately necessary; and

(d) that notice in writing justifying in detail the carrying out of the works was given to the local planning authority as soon as reasonably practicable.

(4) A person who is guilty of an offence under this section shall be liable

(a) on summary conviction to imprisonment for a term not exceeding three months or a fine not exceeding the statutory maximum, or both; or

(b) on conviction on indictment to imprisonment for a term not exceeding twelve months or a fine, or both.

(5) In determining the amount of any fine to be imposed on a person convicted on indictment of an offence under this section, the court shall in particular have regard to any financial benefit, which has accrued or appears likely to accrue to him in consequence of the offence.

7.8 On a summary conviction, the court can set a fine of up to £20,000 or imprisonment of a maximum of six months or both. On a conviction on indictment, the penalty can be an unlimited fine or imprisonment of a maximum of two years or both.

ENFORCEMENT

7.9 Section 3.43 of PPG15 deals with Listed Building Enforcement issues and states:

If work is carried out without consent, a local planning authority can issue a Listed Building enforcement notice (section 38). The notice may (a) require the building to be brought back to its former state; or (b), if that is not reasonably practicable or desirable, require other works specified in the notice to alleviate the effects of the unauthorised works; or (c) require the building to be brought into the state it would have been in if the terms of any Listed Building Consent had been observed.

POWERS TO SECURE ACTION

7.10 The District Council has a series of statutory powers embodied in the Planning (Listed Building and Conservation Areas) Act 1990 which include:

Repairs Notice (Section 48): if a Local Authority believes that a Listed Building is not being properly maintained, it may serve a Repairs Notice on the owner. The notice must specify the works necessary for the preservation of the building, which the owner must carry out. This can be used when a building continues to decline despite attempts by the Council to agree a programme of repairs with the owner or because those repairs have not been carried out. Works can include implementing repairs to reinstate the building to the condition it was in at the time it was listed. Listed Building Consent may be required.

Compulsory Purchase Order: if at least two months have gone by since serving a Repairs Notice, and it appears that steps to secure the preservation of the building are not being taken, the Local Authority may begin compulsory purchase proceedings. Compulsory purchase requires the Secretary of State's confirmation.

Urgent Works Notice (Section 54): these powers can be used on a building that is unoccupied or partially vacant and can be used on either Listed Buildings or unlisted buildings within a Conservation Area. Works that would fall under an urgent works notice would include emergency repairs to keep the building weather

tight, water tight and safe from collapse or to prevent vandalism and theft. The owner should undertake the works, however, the Council has the powers to carry out the works and put a charge on the property.

Dangerous Structures (Section 77): where a building, in the opinion of the Local Authority, is deemed to be not only in disrepair, but dangerous, it may serve notice under Section 77 of the Building Act 1984 to require the owner to either make the building safe, or to demolish all or part of it. On Listed Buildings the local authority must consider whether repair works are urgent, whether issuing an Urgent Works Notice or serving a Repairs Notice would be more appropriate. The serving of a Dangerous Structures Notice does not override the need for Listed Building Consent.

Section 215 Notice- Town & Country Planning Act 1990: provides a local planning authority with the power, in certain circumstances, to take steps requiring land and buildings to be tidied when their condition adversely affects the amenity of the area. The Council may serve a notice on the owner requiring that the situation be remedied. Powers are also available under s219 for the Council to undertake the works and to recover the costs from the landowner. In some circumstances s215 notices may be used in conjunction with other powers, for example, Repair Notices or Dangerous Structure Notices.

PART II:
GUIDANCE ON SPECIFIC MATERIALS

Late Mediaeval House, Croxton
Richard Donoyou

CHAPTER 8

ALTERATIONS TO LISTED BUILDINGS - INTERNAL

CHANGES TO PLAN FORM – HISTORIC DEVELOPMENT OF THE BUILDING

8.1 The plan form of any building is the layout of rooms, arrangement of partitions, and reflects how the spaces have developed and changed over the years. The original plan and layout of a building can provide understanding about how old the building is, how the spaces were used, if the owner had servants, the division of the public and private spaces, etc. The historic development of a building over time tells the story of the building and how it was used. This story is significant and contributes to the special architectural and historic interest of the building. Proposals to alter the historic plan form may affect the special interest and should be carefully considered.

8.2 Before proposing alterations to the historic plan form of a Listed Building, it is important to have an understanding of the historic development of the building. This research can include measured survey drawings, involvement of an architectural historian, reviewing old plans, etc.

8.3 Some degree of research is required such as visiting the Cambridgeshire Collection at Cambridge Central Library and speaking to the local village history group or local residents. Alternatively, an architectural historian can be engaged to research the building. Information on the plan form and historic development, also contributes towards the Heritage Statement required with a Listed Building application.

8.4 Once the development of the plan form has been established, it is then possible to analyse the current plan form and identify what spaces might be suitable to accommodate the desired changes without causing harm or significant loss of historic fabric.

8.5 While alterations may include the existing habitable space, they can in some instances also include bringing previously uninhabited space into use. However, this may raise other issues such as means of escape, fire protection, and the need for light and ventilation, all of which may impact on the historic significance of the building.

FIXTURES AND FITTINGS

8.6 Historic fixtures such as panelling, cupboards, fireplaces, staircases, carvings and mouldings contribute to the character of the Listed Building. There is a presumption that these original historic features will be retained. The replacement or removal of recent or modern fixtures and fittings may not require Listed Building Consent; however, contact the Council to discuss such changes in advance of carrying out **any** work.

WALLS AND PARTITIONS

8.7 South Cambridgeshire has a variety of historic walling materials. These range from clunch, brick and clay bat to timber frame with lath and plaster, wattle and daub or timber boarding. Any alteration proposed to an original or historic partition that results in a loss of historic fabric will need to be clearly justified. There is a presumption that original or historic partitions will be retained.

8.8 The construction method and materials of new partitions should be considered, depending on the proposal and location. It may be possible for new partitions to be constructed from modern materials such as softwood timber and drywall plasterboard. However, in certain circumstances, it may be more appropriate for a new wall to be constructed from lath and plaster, or other traditional materials.

FLOORS

8.9 Flooring in Listed Buildings can vary and include brick or clay pamments, timber boarding, stone, historic screed or 20th century concrete. The presumption is that existing historic floors will remain, although in some circumstances, it may be possible to lift and relay a less significant or sensitive floor in order to carry out maintenance or install services.

8.10 Settling of timber floors is common in historic buildings and does not necessarily indicate a structural problem with the building. In extreme cases, it may be possible to install a floating plywood floor over the existing floorboards in order to provide a level surface on which to lay a new floor provided the original is not of significance or the change would otherwise negatively affect the character of the Listed Building. However, raising levels may lead to problems with existing skirting boards, thresholds, door heights, etc; contact the Council to discuss options before considering works.

8.11 New flooring should be sympathetic to the age and type of building. Fashions change over time, for example in recent years, it has become fashionable to install slate, or stone flagged floors. However, in South Cambridgeshire there is no historic tradition for such materials and their installation in historic parts of Listed Buildings are unlikely to be supported.

FIREPLACES AND FLUE LINERS

8.12 Any alterations to an existing hearth are likely to require Listed Building Consent although the installation of a wood burning stove itself would not. Lining the flue may require consent. There are many types of flue liners including flexible stainless steel and in situ cast concrete, however, the Council will normally only support applications for flexible stainless steel liners as they are reversible and can be installed with minimal damage to the historic fabric. If the proposal is only to install a flexible stainless steel flue liner, without any bird guards or caps, then the

alteration may be dealt with via an exchange of letters, including full specifications. However, contact the Council to confirm.

8.13 The removal of a modern fireplace surround to either replace it or investigate the original historic opening may be supported. Evidence and justification for its replacement should be discussed with the Council *before* investigation and proposals are developed. Advice from a qualified architect or structural engineer may be required. Listed Building Consent will be required.

INTERNAL LIGHTING

8.14 Listed Building Consent is not generally required to install replacement light fittings. There is a presumption against any new lighting being cut into original lath and plaster ceilings – Listed Building Consent will be required.

INTRODUCTION OF NEW SERVICES

8.15 Most Listed Buildings have already been fitted with modernised services such as electricity, heating, lighting and drainage. However, installing new or upgrading existing services can be a challenge when dealing with historic fabric. While the installation of services does not normally require consent, it is best to consult the Council prior to implementing works. Any works should be undertaken sympathetically and sensitively to the Listed Building in order to minimise the damage the historic fabric. It may be preferable to provide new service functions in an existing or new ancillary building or within the modern section of an existing Listed Building. For instance, locating a new kitchen or utility room within the modern section of a Listed Building or within an ancillary modern building would minimise the loss of historic fabric and impact on the Listed Building.

8.16 The consideration of moisture, ventilation or air conditioning, condensation and humidity should be included in any proposal for new heating services in a historic building. When introducing services into a building for the first time, it is critical to understand the potential impact these could have on the historic fabric of the building. Any changes in moisture and humidity can affect not only the fabric of the building, but it could promote fungal growth, mildew, mould, and may affect the occupant's health and wellbeing.

8.17 Particular care is required where new services are to be introduced in rooms with cornices and historic wall coverings. Existing voids such as redundant chimneys or floors could be used to house servicing if the particular circumstances warrant. New services should run *between* the floor joists, not *across*, keeping the loss of historic fabric to a minimum.

8.18 The installation of air conditioning, or other plant, is likely to require Listed Building Consent as it has the potential to disturb the historic fabric and can be spatially intrusive. The location and configuration of the units and routing of ductwork will need to be considered on an individual basis.

8.19 Any introduction of a toilet, sink, or bath will require additional drainage. The location of this drainage is a consideration when planning the layout of the space within the Listed Building. The Council will resist applications that require the installation of new drainage systems on the front elevation and, in some instances, consideration will need to be given to using a macerator that will enable the waste to be run in a small diameter pipe (possibly between floor joists) to link to an existing soil stack. The impact of any drainage system should generally be kept to a minimum.

TIMBER TREATMENT AND INSECT INFESTATION

8.20 Evidence of insect infestation can be found in most historic and traditional buildings, but generally much of this is no longer active. Several species of insects feed on either the sapwood (external soft layer around the tree) or the heartwood (centre of the tree, which is quite hard). Infestation is only apparent when the insect migrates out from the timber, through small exit holes. The shape and size of these flight holes, the type of timber and the colour of the dust around the opening can indicate which insect has caused the damage. The Furniture Beetle, Death Watch Beetle, Powder Post Beetle, Carpet Beetles and the House Longhorn Beetle can all be found in historic buildings.

8.21 Lifecycles vary, but it can take several years for larvae to reach adult stage. Emergence holes may be identifiable, but they are not necessarily indicative of active infestation. It can take a year or two for an area of active infestation to die out and emergence to stop; emergence holes are usually evidence of past infestation.

8.22 The Council believes in a conservative approach to dealing with infestation and treatment, but recommend seeking advice from a timber or infestation specialist. Once infestation has been discovered consider the extent of decay and if the structural integrity has been compromised then assess any existing and active infestation and minimise risk of further decay.

8.23 Treatment can be a challenge as there are usually a number of issues; however, one method of dealing with any insects is to encourage their natural predator, the spider.

8.24 If specific environmental conditions are present (such as moisture, damp, humidity and lack of ventilation) which encourage infestation, then resolving these problems will alleviate the situation. Moisture promotes fungal decay, which creates the perfect conditions for any infestation to occur. Attics and lofts and other hidden spaces can be vulnerable. Dead animals, bird's nests, dust and dirt can also encourage infestation. If routine maintenance and repairs are carried out and the environmental conditions improve, further infestation is unlikely to take place. Monitoring systems can be installed to control any difficult areas so that a humidity level of 65% or lower and a moisture content of 16 -18% or lower is achieved.

8.25 Due regard should also be had to the potential impact of chemical treatments on protected species such as bats. Certain treatments are harm to bats and other wildlife and their use may constitute an offence. Further guidance on the subject can be found in the Bat Worker's Manual, chapter 10 "Timber Treatment, Pest Control and Building Work".

Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004), 3rd Edition Bat Workers' Manual, ISBN 1 86107 558 8, published by JNCC

8.26 Surface spraying or timber treatments are conventional solutions but there is insufficient evidence to show that they address the causes of the infestation and successfully eliminate the problem. As a result, any surface treatment may not reach the insect until significant damage has already occurred and the treatment is only effective in killing the adult beetle and preventing them from laying fresh eggs. It may not kill the larvae. Beetles lay their eggs in cracks, crevices or old flight holes in timber. The larvae can live within the timber for a number of years until they reach adulthood and emerge.

8.27 In addition to surface treatments, chemical injections, smoke bombs and fluids are used. These may not get to the problem areas, can be toxic, harmful to pets and bats, add more moisture to the timber and they may only have a limited success.

DAMP PROOFING

8.28 Historic traditionally constructed building varies considerably from modern construction. A traditional building was constructed from breathable and flexible materials, which allow the building to move and handle moisture levels; in essence the building was capable of taking care of itself.

8.29 The following summarises the differences between traditional and modern building construction:

Traditional mass wall construction:

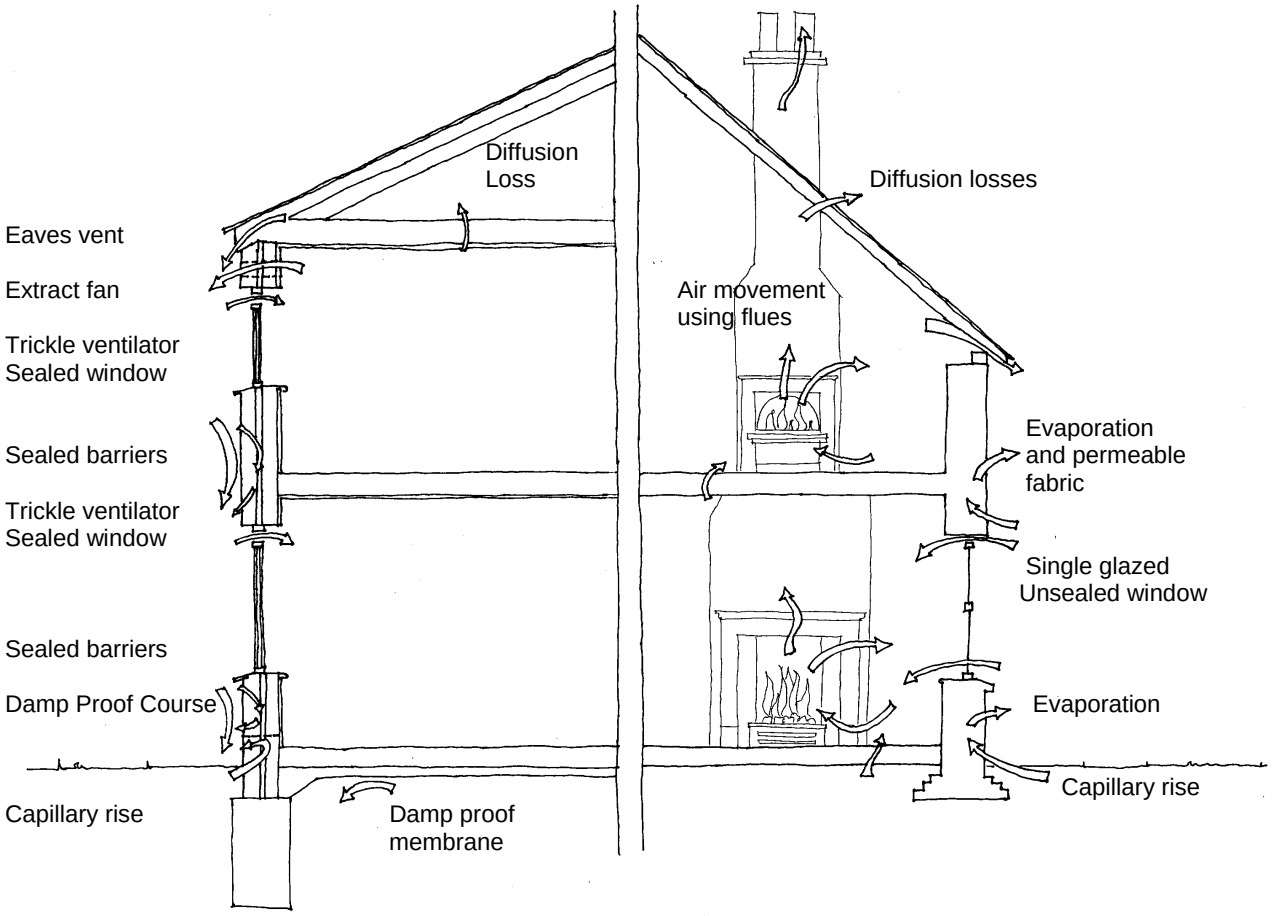
- Relies on the mass of the wall for 'weatherproofing'.
- Built with soft, porous, flexible, 'breathable' materials.
- Absorbs moisture and allows quick, natural drying.
- Relies on natural ventilation to control the internal environment and prevent condensation and mould growth etc.

VERSUS

Modern cavity wall construction:

- Relies on 'waterproof' materials.
- Built with hard, impervious and inflexible materials.
- Physical break (cavity) and barriers or membranes to prevent moisture transferring to the inside of building.
- Relies on mechanical extraction and physical ventilation to control the internal environment and prevent condensation and mould growth etc.

The following diagram illustrates the way a traditional building works compared to a modern building



8.30 Uninformed advice is often given that damp problems in old solid floors can be solved by inserting a damp-proof membrane (dpm) under the existing covering. This advice is often given because standard practice in the construction of a new building is to include a dpm within the floor thickness which is linked to a horizontal damp-proof course (dpc) designed to prevent moisture rising within the thickness of

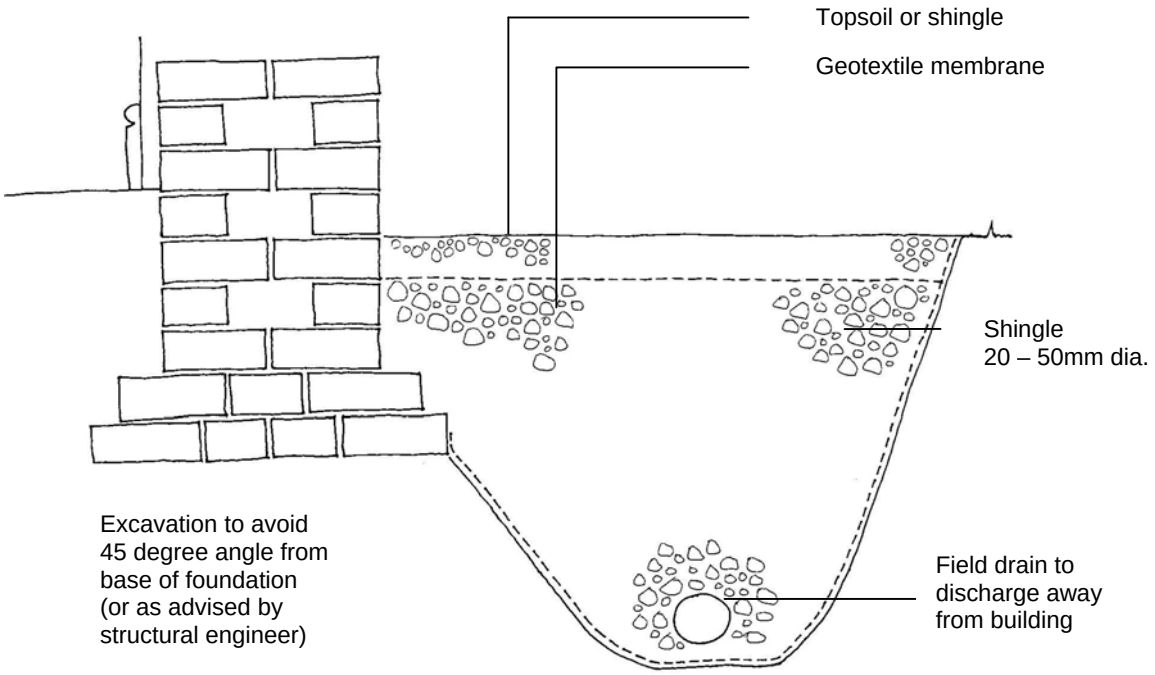
walls, internally or externally. However, lifting and relaying a floor on a new dpm can cause problems as well as damage to the historic fabric. Restricting the amount of moisture, which can evaporate through the floor, is likely to increase the moisture content at the base of the walls, partitions and chimneybreasts. The insertion of a horizontal membrane will often displace and concentrate moisture, unable to evaporate over the whole area of the floor, at the edge of the membrane.

8.31 Installing a chemical or physical damp proofing will require Listed Building Consent and will need to be supported by an assessment and justification from a suitably qualified independent professional with experience of historic buildings taking this approach. Traditionally built buildings will generally have a certain amount of damp; this is completely normal and is managed through allowing the building to breathe. It is important to understand *WHY* there is damp before promoting a solution, treating the cause is more beneficial than treating the symptoms as this may not solve the problem in the long term.

8.32 Blocked drains, faulty rainwater goods or high external ground levels may cause damp. The external ground level should be the same or lower than the floor level inside the building and with timber framed structures the sole plate should be above the ground level to avoid exposing the timber to excessive moisture, which will result in decay.

8.33 Within a timber framed building a physical damp proof course (dpc) may be introduced in particular circumstances where the work is felt to be appropriate or when undertaking other necessary repairs such as renewing the sole plate on a timber frame building or rebuilding the brick plinth. However, this will be reviewed on a ‘case-by-case’ basis and consider the potential negative impact.

8.34 The introduction of a carefully installed French drain or land drain around the exterior of a Listed Building will direct the water away from the building and ease the damp problem.



Typical detail of a French Drain

8.35 Damp can become trapped when the building has been painted, internally or externally, with non-permeable paints. Modern paints can contain acrylic, which prevents the fabric from breathing.

8.36 Modern damp proofing methods, such as chemical injection, are only appropriate in very specific circumstances. One the rare occasions where the use of a chemical injection dpc is supported, the injection should take place in the mortar joints and not the brick itself.

8.37 Chemical injection is not suitable for materials such as clunch, clay bat, or timber. This process relies on modern plasters with salt inhibiting solutions to 'mask' some of the symptoms of rising damp. Such works are generally not appropriate in an historic Listed Building.

8.38 There is a presumption against the insertion of a dpm or dpc in traditionally constructed properties, due to the potential damage to historic fabric and because the intervention is usually unnecessary. Dampness is generally related to constructional defects or interventions, which have undermined the previous breathing potential of the floor or walls. Initially, with any dampness related problem, thought should be given to some other common potential defects such as: condition of rainwater goods; external ground levels; adequacy of ventilation, condensation misread as rising damp and the use of rubber-backed wall–to–wall carpets or other floor finishes which have acted as a membrane and held damp and moisture back.

8.39 If dampness persists and all other solutions have been tried and failed, the decision to lift and relay the flooring on a concrete slab may be taken. If this is the case, damage to the original fabric is likely to occur.

8.40 Insulated, breathing lime floors are an alternative to installing concrete slabs and have been used successfully in historic buildings for a number of years. The principle is simple: a layer of loose-fill, coarse, permeable aggregate is laid on a compacted sub-base, usually simple bare earth with a layer of geo-textile on top. A slab of lime concrete, or limecrete, is laid over the loose-fill layer, using a layer of geo-textile to prevent it slumping down into the loose fill. The limecrete will allow moisture vapour to pass through it and evaporate. If underfloor heating is required, pipes can be laid in a layer of lime screed on top of the limecrete. Tiles or floor pamments can be bedded on a dry lime and sand base to create the finished surface.

8.41 Another common cause of damp is the use of inappropriate **impermeable materials**, such as cement render and gypsum plaster which are rigid and will not flex with the building. As a result, they can crack allowing ingress of moisture. In addition, these materials are not permeable, and will trap moisture within the fabric often forcing it to the internal face as it seeks an alternative way out, causing the render or plaster to 'blow' typically seen on the exterior of the building.

STRUCTURAL CHANGES AND STRENGTHENING

8.42 Historic buildings can successfully accommodate movement over time. Some buildings may require strengthening, but proposals need to be based on a full understanding of the building and potential causes of problems, such as the impact of tree roots. Proposals for structural works to improve the soundness of a Listed Building will require Listed Building Consent. As part of the consent, sufficient evidence and documentation, in the form of a report from a qualified structural engineer or chartered surveyor, experienced in working with historic buildings, should be submitted to outline the cause of the failure, what the problem is and what impact the work would have on the Listed Building. The main aim is to address the cause of the problem and not simply fix the symptoms.

8.43 Historic buildings are susceptible to seasonal movement, depending on the construction materials and methods and ground conditions. However, this is not necessarily harmful as traditionally built buildings were constructed to accommodate these variations throughout the year. Nevertheless, it is important to understand the building and its situation to understand the significance of any movement. For example, what material is the building constructed from, what type of soil is located in the area, how deep are the building's foundations, etc. It may be necessary to monitor movement over a period of time.

8.44 Any interventions (such as those outlined above) to address structural concerns should include a report from a qualified and experienced structural engineer or chartered surveyor. This report should be carefully considered and show an understanding of the building and the nature of the problem (innovative structural interventions based on a good understanding of the historic building may be supported if they provide a low impact solution, however, tried and tested methods should normally be pursued first). Investigative works may be required to open up

some areas of the building, including digging trial holes to assess foundations or soil conditions and content. It is possible that these opening up works will not require Listed Building Consent; however, it is best to contact the Council to check before carrying out any works. A proper assessment and methodology can only be derived once the building is understood. Speculative or conjectural recommendations, which appear to address the issues, may result in a reaction from other areas of the building.

8.45 The Council will not support applications which do not provide a clear understanding of the works proposed, the implications to the historic fabric, a full understanding of the existing structure including detailed measured survey drawings showing structure such as timber framing. The Council will need sufficient information and justification to determine any proposal. It is important to note that the extent of work may not be fully understood until further investigative works are undertaken. Minor opening up works in order to facilitate a better understanding of the existing structure may be supported by the Council, however, contact the Council of this prior to carrying out the works.

CHAPTER 9

ALTERATIONS TO LISTED BUILDINGS - EXTERNAL

GENERAL ROOF MATERIALS AND DETAILS

9.1 The Council will require that all new materials are handmade, locally sourced from within the United Kingdom and preferably from the local area and appropriate to the building's age and style, unless otherwise agreed in writing and based upon the particular circumstances of the proposal and building.

9.2 It was common during World War II to cover or replace thatch with corrugated iron. As a result, many historic roofs were lost. Historic photographs or physical evidence can provide the evidence necessary to justify and inform the reinstatement of either longstraw or water reed thatch.

9.3 There may be evidence within the attic space that gives clues as to what the original roofing material was. However, it depends on how old the building is and if the entire roof structure has been replaced at some point in the buildings history. Early roofs (and those found inside later ones) could contain evidence of smoke blackened beams or thatch on the inside of the roof. Originally buildings did not have chimneys and a small fire was lit in the middle of a room which produced smoke blackening. Evidence may also be provided by historic photos or written descriptions of the buildings.

9.4 When carrying out repairs to an existing roof or building a new roof, the material used is important. In addition, modern Building Regulations might dictate particular requirements for insulation. Ventilation can be achieved through vents in the eaves line, which is a discreet and simple way to provide circulation of air.

9.5 When installing a new roof, once Listed Building Consent has been granted, it may be possible to install the insulation and additional new timbers on the outside of the old roof, thereby raising the height of the new roof marginally. This can allow the original roof structure to remain in situ and be visible. In addition, a new roof may result in the change of the load structure. A structural engineer should be consulted.

9.6 The Council will require that all new materials are handmade, locally sourced (from within the United Kingdom and preferably from the local area) and appropriate to the building's age and style.

DORMERS

9.7 Historically, dormers enabled the attic or upper floor to be used by introducing light and air. However, the introduction of new or additional dormers can create a substantial loss of historic fabric and change the external appearance. For example, dormers can appear too dominant or regular. The installation of a dormer

requires cutting parts of the original roof structure and the advice of a structural engineer should be sought at an early stage. Nevertheless, whilst it may be structurally possible to create a new dormer, such an addition may harm the fabric and appearance of the Listed Building.

9.8 Where there is no evidence that the building ever included dormers (e.g. from old photographs or the presence of trimmers within the roof structure) then the Council is unlikely to support applications for the installation of dormers on a Listed Building.

9.9 When a dormer is to be reinstated, the existing roofing material will help determine the style of dormers and design. For example, within a thatched roof, the common styles are either an eyebrow dormer or a gabled dormer, but it is also common in some areas of South Cambridgeshire to find plain tiled dormers set within thatched roofs. Elsewhere, and especially in the Fen Edge villages, it is common to find 'catslide' dormers with peg tiled roofs.

9.10 Dormers are also to be seen in plain tiled roofs where they are usually covered in the same tiles as the main roof. Lead flat roofed dormers occur in the plain tiled or slate roofs of larger 18th Century and 19th Century houses.

ROOFLIGHTS

9.11 Rooflights can also result in the loss of historic fabric and alter the external character and appearance of the Listed Building. There will be a presumption against prominently located rooflights in the roofs of historic buildings. However, in some cases it might be possible to locate a rooflight discreetly, such as in a roof pitch or in an internal valley or within a modern section of the building. Rooflights should be fitted between the rafters to avoid damage to historic roofs.

9.12 Where the Council supports the principle of rooflights, they are to be of a traditional size, form, appearance and detailing, flush with the roof covering. The installation of a rooflight within a slate roof is likely to be visually less intrusive compared to a tiled roof. Where rooflights are to be installed on pantiled roofs, consideration should be given to the use of secret gutters to avoid unsightly lead detailing around the rooflight and minimise the visual impact.

9.13 The use of multiple rooflights is likely to be visually unacceptable and could result in the loss of historic fabric. Where there is a particular need for additional light, e.g. a room without a window, consideration may be given to the use of a single rooflight. However, it may be preferable to light the room artificially if it is ancillary or already has some natural light.

RAINWATER GOODS

9.14 Whilst thatched roofs are capable of shedding rainwater naturally from their large overhung eaves other roofing materials traditionally had either no method of

managing rainwater or used simple timber gutters. This was until the Industrial Revolution when cast iron gutters and rainwater pipes were produced. In some instances these have more recently been replaced by plastic. There is a presumption that the Council will not support the use of new plastic replacement rainwater goods as they are not historically appropriate for use on Listed Buildings and will not provide any enhancement to the building. New rainwater goods should either be cast iron or cast aluminium of traditional design and profile.

CHIMNEYS AND CHIMNEY POTS / CAPS

9.15 Works to existing chimneys, such as increasing the height or installing a chimney pot will require Listed Building Consent and need to be justified. There are some cases where insurance companies advise owners that chimneys must be raised to comply with their policy requirements, especially in the case of buildings with thatched roofs. These cases will be judged on their individual merits. The Council will resist applications for the installation of spark arresters in thatched roofed properties as research indicates that these can create problems such as blocking up and trapping heat.

9.16 When undertaking works to a chimney it is important to consider the types of brick (size, colour, and texture) and pot that should be used, in order that they complement the existing structure. There are many types of chimney pots; however, often the best source of information is to look at other buildings within the village to gauge what style and colour is typical.

9.17 Chimneystacks are vulnerable to weathering and sometimes it is necessary to repoint the brickwork or even dismantle the upper part of the stack and rebuild it to match. Partial dismantling and rebuilding will require Listed Building Consent.

9.18 Renewing of flashings or flaunchings around the bases of a chimney may be considered a repair, depending on the extent of work. Typically these works are done using lead or lime mortar.

9.19 Regardless of whether the fireplace is in active use, ventilation is required to maintain air circulation in an historic building. It is important to review the best solution for the situation.

SOLE PLATES AND FOUNDATIONS

9.20 On timber-framed buildings, small-localised repairs to existing sole plates or foundations may be implemented as a repair. However, for more extensive repairs a structural engineer's report must be submitted to the Council together with a specification and schedule of work that clearly outlines the scope of work in order that these can be agreed before work commences.

9.21 Complete replacement of the sole plate or extensive works to the foundations such as underpinning will always require Listed Building Consent and should be supported by a structural engineer's report.

EXTERNAL FINISHES

9.22 The external finish of a Listed Building contributes to the character and significance of the building. Common external finishes include timber weatherboarding, exposed brick or stone and timber frame covered in render. Historic materials should be retained and repaired if possible. In rare cases where the exterior finishes are damaged beyond repair or where inappropriate materials have been used in the past and total replacement is necessary, it is important to discuss these issues with the Council before any works are implemented in order to ensure that what is proposed is in the best long-term interests of the building. Listed Building Consent will be required for wholesale replacements of external finishes.

9.23 Historic finishes, e.g. old wall paintings, pencilling, ruddling and historic advertisements, should be protected, as they may be part of the building's special character and significance.

9.24 Routine maintenance and small areas of repair to existing render or paint can be carried out without Listed Building Consent, providing it matches the existing, e.g. limewash applied to previously limewashed areas. Treatment of the exterior of a building can vary historically and once the building has been painted, it is difficult to remove, therefore permanently affecting the historic fabric and character of the building.

9.25 There are three ways a lime finish can be used:

- Lime plaster is typically used internally on the partitions
- Lime render is typically used externally
- Lime wash is typically used as a paint like substance, which can be coloured or tinted and used either internally or externally

Timber weatherboard

9.26 Timber weatherboarding is a traditional finish in South Cambridgeshire on barns and outbuildings, usually stained or tarred, but in several villages the tradition is for paint and the specific local details contribute to the character and appearance of the Listed Building. Any proposal for new or replacement boarding should consider the width and detailing of the boards, the finish (stained, painted, tarred) and the form (feather-edged or straight-edged). Ship lap boarding is rarely an appropriate detail.

Render / Paint

9.27 Most timber framed buildings were originally rendered or limewashed. Today many of these buildings have also been painted with modern paints and some have had inappropriate materials applied such as cement render or modern pebbledash. As with any traditional structures, the need for the building to be flexible and allow moisture to move in and out is critical. Inappropriate materials can prevent this breathability and flexibility from happening and eventually lead to damp and structural problems. Evidence such as cracking, small areas of render falling off, damp problems and draughts can be signs that the external material is failing.

9.28 Listed Building Consent is likely to be required for the removal of an inappropriate material such as cement render as the method of removal and potential damage to the surface underneath needs to be assessed. Following discussions with the Council, it is recommended that a small and discreet test area be trialled to determine how easily the material is removed and to assess the condition of the materials beneath.

9.29 Limewash is highly porous being the final coat in a totally breathable system, as opposed to modern emulsion paints, which encase the walls in a plastic film. One major benefit to using limewash is that it provides a natural UV proof (ultra-violet) protection to the building.

9.30 Undertaking modest repairs to defective lime render or plaster may be carried out without Listed Building Consent, providing the repairs are minor and match the existing colour, mixture and texture. If a Listed Building has existing cement render, which is failing, Listed Building Consent is required to remove the render and replace it with the appropriate lime mix. It is possible that the removal of existing cement renders will damage the historic fabric beneath. Following consultation with the Council, a test area may be removed to understand what, if any, harm may result.

Masonry (Brick or Stone)

9.31 Masonry buildings were not normally painted (although limewash was sometimes used as a finish to exposed brickwork internally, particularly in cellars and ancillary buildings). Once applied to masonry walls, modern paint is difficult to remove and may affect their breathability causing problems with damp and damaging the surface. It will also affect the special character and appearance of the building and is unlikely to receive officer support.

9.32 In all cases, surface materials should be porous and breathable. However, it is possible that over the evolution of the building's history, an inappropriate finish may have been used. This equally applies to the internal finishes of traditional buildings.

9.33 Early bricks were fired at low temperature; some may not have been fired long enough, causing them to be relatively soft. In South Cambridgeshire, the soft bricks are mainly red. If these bricks have been exposed to excessive moisture, and then a frost occurs, the face of the brick may 'spall'. This is when the face of the brick starts to flake off. This can be made worse when cement is used in the mortar joints. It may be possible to carefully remove a brick that has significantly lost its facing and either turn it around for reuse or replace it with a complementary new brick. It is important to ascertain if the material is still sound and performing well, or if it has lost its integrity.

FENESTRATIONS

Windows

9.34 Windows are a significant component in the character of historic buildings. Windows can be evidence for the age and evolution of the building as styles and design changed over time. Windows create patterns and rhythms on the buildings elevation, for example on terraced houses windows create a visual harmony and unity.

9.35 Listed Building Consent is required if the proposal is to replace single glazed windows with double glazed windows; applications will be considered based upon the merits of the individual circumstances.

9.36 If historic timber or metal windows exist, they should be retained and repaired. The Council holds lists of companies who are willing to make repairs rather than replace windows. It is only in the few cases where a window is completely beyond repair that the Council may consider approving replacements. The new window would have to match the existing in style, materials and design with old glass being salvaged and reused.

9.37 Photographic evidence of previous windows can sometimes give the detailed information needed for successful reinstatement. The Council will generally require such solid evidence and is very unlikely to support speculative proposals.

9.38 It is possible that prior to a building being Listed inappropriate modern windows were installed. The Council will support the replacement of these windows with a traditional size, style and design as this will be an enhancement to the building. Old photographs or documentation will be required as evidence.

9.39 Window furniture or hardware is important, for example, the hinges, catches and locking mechanisms should be retained for reuse where replacement joinery has been approved. When proposing new furniture, the appropriate style, size and finish should be selected to match existing or an appropriate design for the windows.

Doors

9.40 The style, design, size and furniture of a door can reveal the age and history of a building. Where possible, existing doors should be retained and repaired. When a new door is to be introduced, the design and detailing should be appropriate. There is a presumption that modern flush or moulded doors will not be accepted and stable or barn doors will not be accepted in Listed Buildings other than in a barn style or stable building.

9.41 As with windows it is important to retain and reuse original door furniture or hardware if a replacement door has been given consent. Any new furniture should be kept simple and appropriate to the door age and character. Iron or forged metal was common in earlier buildings whilst later Georgian buildings brass or iron was used. Reinstatement of original doors should be based on photographic evidence.

Ventilation and extraction systems

9.42 As discussed above, it is important for any historic building to be able to breathe, allowing air movement and moisture to enter and leave the building naturally. In particular, ventilation needs to be considered in light of the particular characteristics of the historic building construction. Poor ventilation can lead to the following problems to both the building and its occupants:

- Promotion of moisture and condensation
- Decay and damp
- Impact on historic fabric
- Changes to relative humidity
- Health problems such as allergies, asthma

9.43 All new bathrooms, utility rooms, and kitchens will require ventilation and extract systems to allow for the additional moisture to be discharged to the outside. These works must meet Building Regulations requirements.

9.44 In commercial buildings, extract and ventilation can have a significant impact on the character and appearance of a Listed Building. For example, a restaurant is required to have an extract system, with an external flue projecting from the wall or roof. The form, appearance, materials and extent of the projection all require careful planning. Where these systems are essential, the units and extract terminals should be kept as simple and discreet as possible.

9.45 The units and extract terminals will require Listed Building Consent and it is essential to ensure that the proposed location is both sensitive to the building's character and appearance and minimises the loss of historic fabric. The

specification and location of these units must be included in any application for Listed Building Consent. Applications must include full details of the entire system including specifications, locations and detailed drawings.

9.46 Airbricks are a conventional way of providing ventilation. There are now alternatives to the installation of an airbrick, which can be discreetly located and installed. However, each case will be reviewed on its own merits and Listed Building Consent may be required.

Air vent open

Air vent closed

AERIALS AND SATELLITE DISHES

9.47 Modern technology exists in most historic buildings and almost all have televisions, which require an aerial (unless a cable supply is available). The visual impact of a conventional antenna on the roof or chimney has been widely accepted. However, when new aerials are to be installed the location should be carefully selected to minimise their impact.

9.48 As technology advances, the Council will continue to re-evaluate its policy in terms of impact on Listed Buildings. There is a Government policy to convert all analogue aerials to digital between 2008 and 2012. As a result, new aerials will be required to replace the old. The installation of television aerials on residential Listed Buildings is classed as permitted development not requiring prior approval, but the Council is always willing to offer specific advice and whilst aerials are not generally of a sympathetic design they are becoming smaller as technology advances. Large and stridently coloured aerials should be avoided. Care needs to be taken to ensure any fixings are screwed into the mortar joints and not into the historic fabric, such as brickwork or stone.

9.49 Unlike television aerials, the installation of a satellite dishes on a Listed Building requires specific Listed Building Consent. The Council will not support applications for the installation of satellite dishes on a Listed Building where they will detract from the character and appearance or result in the loss of historic fabric. As such, there is a presumption against installing dishes on Listed Buildings and alternative locations should be investigated, these include on a modern (unlisted) outbuilding, on the ground or pole mounted in the rear garden.

9.50 It **may** be possible to locate an aerial or satellite dish within the attic or roof space. However, consult the installer or manufacturer to ensure this option does not pose any fire hazard or damage to the historic fabric. Contact the Council to discuss locating a dish or aerial in the attic space and if the work would require Listed Building Consent.

9.51 There are government guidelines for the location of dish antenna, which can be found in a document entitled *A Householder's Planning Guide for the Installation of Antennas, including Satellite Dishes* available from the Communities and Local Government website, www.communities.gov.uk

A good example of a freestanding satellite dish not attached to the Listed Building

EXTERNAL LIGHTING

9.52 The installation of new light fittings attached to the exterior of a Listed Building in commercial use will require Listed Building Consent. When proposing new lighting, the style, design and scale shall be appropriate to the age and character of the building. There may be some instances where a modern and simple design is appropriate rather than a pastiche 'coach light' fitting. However, it is best to consult with the Council prior to submitting any proposals for consent. Listed Building Consent is required to install any new external lighting, when not using an existing electrical point. The style, design, location, and size of the proposed light should be considered in relation to the age, character of the building and the potential harm to the external appearance and light pollution.

9.53 Within a commercial use, low-level lighting may be more appropriate then installing fixtures on the Listed Building. For example, discrete and simple bollards with lights can minimise the impact to the setting of the Listed Building and avoid disturbing neighbours.

9.54 Harsh flood lighting should be avoided and care should be taken to avoid light pollution caused by poorly sited fittings, and impact on neighbours.

9.55 There is a presumption that the Council will not support the use of any flood lighting.

9.56 When proposing to install any new exterior lighting, the following should be considered:

- Use of timers to ensure the lights are turned off after closing time (commercial premises)
- Impact on the setting and appearance of the Listed Building
- Impact on the neighbours
- Style, size, location and design should be appropriate to the age and character of the building

ADVERTISEMENTS

9.57 Signage and advertising is an important feature for many local businesses. The name of the premises, the opening times, and facilities available are generally on display. A certain amount of signage is appropriate, but can easily become visually intrusive and harmful if not managed. Some businesses are part of a national chain and signage is encouraged to reflect a corporate image. Where traditional signs survive, they are considered significant and should be retained and repaired as required. New signs will require Listed Building Consent and care should be given to their design. Refer to the Council's *Design Guide* for more information on signage and advertisements.

9.58 Historically, signage was hand painted directly onto the building or on timber boards hung or attached to the building and were not illuminated. There is a shortage of traditional sign making skills, leading to the inappropriate use of modern materials such as fibreglass and plastic.

9.59 New signs or advertisements (include those which replace or add to existing signage) can have a major impact on the character and appearance of a Listed Building. Where a proposal to display signs or advertisements on a Listed Building is considered acceptable in principle signs should be designed specifically complement the age and architectural style of the building. They should also be carefully located and should not obscure, overlap or cut into any architectural detailing or structural divisions of the building. These considerations will to a large extent dictate the scale of any signage. In many cases a traditional sign produced by a skilled sign writer on a timber board or painted directly onto the building will be the most acceptable.

9.60 The use of standard corporate signage by major companies will generally be inappropriate, as will modern man-made materials. Individually applied lettering can be damaging to the historic fabric as it is rarely fixed into the mortar joints or brickwork.

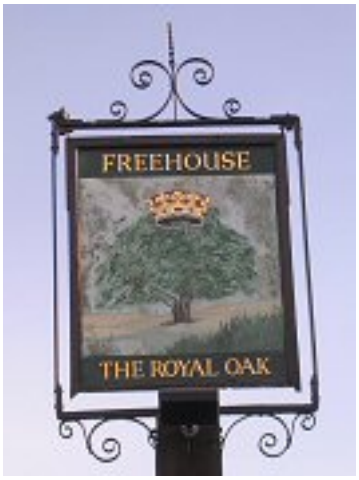
9.61 New projecting or hanging signs can adversely affect the appearance and character of Listed Buildings. Where their presence is allowed because of their location and building type and use, particular attention will be paid to size, design and materials. Hanging signs should be vertical in proportion, with a timber frame.

9.62 In most situations signs and advertisements displayed on Listed Buildings should not be illuminated. Where illumination is justified it should be achieved unobtrusively. Internally illuminated signs will not normally be supported.

9.63 Almost all advertisements on Listed Buildings will constitute an "alteration" to the building and, therefore, require Listed Building Consent in addition to Control of Advertisement Consent. Special care is essential to ensure that any advertisement displayed on, or close to, a Listed Building does not detract from the integrity of the building's design, historical character or structure, and does not spoil or compromise its setting.

9.64 The advertisement control system can be quite complex and the Department for Communities and Local Government's *Outdoor Advertisements and Signs: A Guide for Advertisers* (www.communities.gov.uk) is a useful starting point for more detail regarding consent requirements.

Examples of signage hand painted onto the building



Example of traditional hanging public house signage

SHOP FRONTS

9.65 Existing traditional shop fronts on Listed Buildings should be retained and repaired as necessary, even when the business has ceased trading or has changed use. Historic shop fronts tell the story of the village development and provide character and charm to the area. When refurbishing existing shop fronts, quality traditional materials and methods should be used. The installation of signage and advertising on shops is similar to that for public houses. Traditionally a single sign written board was sited above the display window. The Council will not generally support the removal of historic shop fronts.

9.66 Components of shop fronts may include windows, doors, pilasters, fascia, lettering, cornices, entrance vestibules, plinths, corbelling and detailing, all of which are equally significant.

9.67 Where there is a need to improve security (especially in Pharmacies or shops with high value merchandise), the introduction of security may be appropriate. For example, shutters, grilles or bars should be located *discreetly* on the inside of windows behind displays providing this does not damage existing features of interest. Listed Building Consent will be required. There is a presumption that the Council will not support any applications for external shutters.

CHAPTER 10

STRUCTURES WITHIN THE SETTING OF LISTED BUILDINGS

LINKS

10.1 Sometimes a dwelling may not be capable of further extension. In these circumstances, it may be possible to provide additional accommodation in a freestanding structure, which will require Planning permission (such as a garden room or annexe). However, where new accommodation is provided in a separate structure, there is a presumption against linking this to the Listed Building and the freestanding structure should be sited at an appropriate distance from the Listed Building.

CONSERVATORIES (ATTACHED EXTENSIONS, NOT FREESTANDING)

10.2 The Council will not normally support proposals for conservatories on most types of Listed Buildings. Timber framed buildings and modest cottages would not have had conservatories. Later Victorian buildings may be better suited for this type of extension. The design and form of the structure is important to ensure that it works with the existing building. It is also important to consider the materials, the way in which the structure attaches to the existing building, the roof pitch, the subdivisions of the glazing, rainwater disposal and the impact the conservatory will have on the Listed Building and its setting.

10.3 Historic examples of conservatories, greenhouses or orangeries were typically found on grander and larger buildings, not on cottages or vernacular architecture, which make up the majority of the buildings within South Cambridgeshire.

10.4 Some Victorian houses retain cast iron veranda structures. Section C.22 of PPG15 suggests it is not appropriate to enclose such structures to create conservatories and the Council supports this view:

> *Balconies and verandas are very often formal components in the design of an elevation. They should be maintained and repaired; and if they have to be replaced, facsimiles should be erected using matching materials. As with porches they should not normally be enclosed with glazing.*

PORCHES (ATTACHED EXTENSIONS)

10.5 Porches were not found on most traditional buildings. Where they exist, they are often simple, open structures providing shelter to callers and a degree of weather protection to the main entrance door.

10.6 The modern concept of the porch has become an enclosed multi-purpose room that can include a place for coats, boots, a cloakroom, an entrance hall, and even a utility room. Whilst it may be advantageous to the occupants to have these

facilities, it is not always essential or appropriate on a Listed Building. Existing spaces within the building should be considered first to see if they could be reworked to accommodate some of these facilities. Where a modest porch is considered acceptable, the location, design, style, and scale needs to be carefully considered. The location of a porch could significantly affect the character and setting of the existing building. Whether located at the rear or front elevation, a porch extension would only receive support if the building were capable of visually accommodating the additional mass.

10.7 A sympathetic alternative to the fully enclosed porch is a traditional, simple flat hood on brackets that provides protection. The Council is more likely to support traditional hoods where they are considered appropriate.

ANNEXES (FREESTANDING)

10.8 Annexes should be subsidiary, freestanding buildings that provide ancillary accommodation or use to the main Listed Building. The size, massing, proportion, and design of any annexe are important, as it may have an impact on the Listed Building and its character and setting. It is important to ensure that the relationship between the Listed Building and its surroundings are maintained and the new building does not obscure or detract from views or harm the character and appearance of the Listed Building.

10.9 Converting an existing building into an annexe may also require Planning permission. There is a presumption against approving schemes which cannot be contained within the existing building but require extensions.

10.10 The Council will not support any proposal that:

- Would dominate the Listed Building or its curtilage buildings in scale, form, massing or appearance
- Would damage the setting, well-being or attractiveness of a Listed Building
- Would harm the visual relationship between the building and its built and formal or natural landscape surroundings
- Would damage archaeological remains of importance unless some exceptional, overriding need can be demonstrated, in which case conditions may be applied to protect particular features or aspects of the building and its setting

GARAGES, SHEDS, GARDEN ROOMS AND OFFICES / STUDIOS

10.11 The erection of a small freestanding building in the grounds of a residential Listed Building will not require Listed Building Consent, but **may** require Planning

permission; consult with a planning officer to discuss any proposals to determine if it requires consent.

10.12 The following should be considered when proposing a new building within the setting of a Listed Building:

- Design, bulk and massing should be subservient to the Listed Building
- The height is an important consideration
- Structure to be of modest proportions generally either single storey or at most one and a half storeys, but without accommodation in the roof space
- Doors should be timber (side hung for garage doors) with appropriate hardware and hinges; windows shall be timber with appropriate furniture
- Orientation in relation to the Listed Building should be carefully considered
- Selection of materials in relation to the Listed and Curtilage Listed Buildings and structure

BOUNDARIES - FENCES, GATED, WALLS AND RAILINGS

10.13 The erection of walls, gates and fences within the curtilage of a Listed Building will not require Listed Building Consent, *unless* the wall, gate or fence is physically attached to the Listed Building or a Curtilage Listed structure. Planning permission will always be required irrespective of the height. Refer to Sections 11.40 – 11.55 for further details.

10.14 The style, materials, and height of the wall, fence, or other boundary treatment could affect the setting and character of the Listed Building. It is important to look at the character of the surroundings and the pattern of development and details on the Listed Building and historical evidence (e.g. archive photographs) to ascertain what is appropriate. For example, a post and rail fence might be appropriate in one situation but cast iron railings or a wall may be appropriate in another.

10.15 When proposing a new gate at the entrance to a drive, consider the following:

- Ownership of the land crossing the public highway
- Requirements from the Highways Authority such as type of material used for drive and visibility
- Automation of gates- unit location, colour, design
- Traditional design within the context of the surroundings and the age and type of building

SMOKING SHELTERS

10.16 Under the new Smokefree (Premises & Enforcement) Regulations 2006 public houses, public places and work premises that were enclosed or substantially enclosed had to become smoke-free by the 1st July 2007. Premises affected needed to provide alternative facilities for people who choose to smoke. Providing the shelter is NOT physically attached to the Listed Building, it will not require Listed Building Consent, but will normally require Planning permission as there are generally no permitted development rights for these structures within the grounds of the Listed Building.

10.17 When a smoking shelter is proposed within the curtilage of a Listed Building there are several key factors to consider:

- The location should be sympathetic to the historic building (and the Conservation Area)
- It should not be located at the front on the primary elevation
- It should not be located adjacent to the main entrance
- It should be of modest size and scale
- It should be of appropriate design and built of appropriate materials
- It should not be attached to the Listed Building

CHAPTER 11

SPECIFIC HISTORIC DETAILS OF LISTED BUILDINGS

(Refer to PPG15 Section Annex C. Guidance on Alterations to Listed Buildings for further information)

WINDOWS

11.1 Windows are a significant component in the character of the building. Windows can help determine the age and evolution of the building as styles and design varied over the different periods of architecture. They are especially significant within the context of row of terrace houses, as the rhythm and pattern of the windows create a visual impact that affects the character and significance of the historic buildings.

11.2 Where original or significantly old timber or metal windows exist, there is a presumption that the Council will require the windows be retained and repaired. Most timber and metal windows are capable of being repaired. The Council holds lists of craftsmen who are capable of repairing to timber and metal windows. If it is agreed that a window is beyond a reasonable state of repair the Council may consider approving a replacement, however, any new window would be of an appropriate style generally matching materials, size and design and detailing, using old glass. Historic photographic evidence may be used as an aid in determining the replacement of a modern inappropriate window. The Council will not generally support speculative proposals.

11.3 Prior to a building being Listed inappropriate modern windows may have been installed. The Council will generally view the replacement of these windows with a traditional style, size and design as an *enhancement* to the building.

11.4 When repairing or replacing windows, historic hinges, catches and locking mechanisms should be retained for reuse where possible. Old or original glass and hardware should be salvaged and reused. Windows should be positioned in the wall to match the existing, which may be flush with the face of the wall or set back.

11.5 There are many historic types of windows, for example, horizontal sliding sash, casements and double hung sashes.

- Windows are often a building's most prominent feature
- They are one of the most significant components in determining a building's character and appearance
- Window design has evolved continuously over the centuries, so windows can be of invaluable assistance in dating buildings, and later phases of alteration

- Window design is closely related to the evolution of architectural styles, framing materials and, most importantly, to technological advances in the manufacturing of glass

- The importance of windows does not just rest in their overall appearance, but in details such as their construction and materials, their fittings and mechanics and glass

- The type of windows in a building sometimes reflects the original status of the owner and the building. Within a single building, windows of differing status often reflected the social hierarchy of the internal spaces, from the principal reception room to the service areas

Example of a Mediaeval Diamond mullioned timber

Example of a sash window

Example of a sliding sash

Typical window opening mechanisms for traditional casements

Window cills, heads, shutters

11.6 Window arches, cills and shutters are important in reflecting the character of a building. Original features should be retained and repaired as required.

11.7 Window arches and cills can be found in various materials (timber, brick and stone) and the use of different materials can reflect a building's evolution over time. Stone

cills can delaminate due to frost action and may need to be repaired. Any replacement should be in a matching stone with detailing that matches the existing.

11.8 Any proposals for reinstatement of original details must be based on historic evidence, such as old photographs or existing historic fabric and be appropriate to the age and type of building. The position of windows within the walls should be noted whether flush (in timber framed buildings) or set back into reveals (in masonry buildings). These positions also changed with different architectural periods and styles.

Single Glazing

11.9 Glass has been manufactured in Britain since the 13th Century. Despite this, glazed windows were rare until the 16th Century, when leaded lights set in metal 'casements' or frames began to be more accessible to the average person. Historic glass can vary, but older glass can be wavy or opaque, and should be retained as it is of historic interest. One of the key features of a single glazed window is the ability to have fine moulded glazing bars, which contribute to the character of the building. The profile and detailing of the glazing bar should be carefully considered in any proposal for repairs.

11.10 Ill fitting draughty windows can be improved by the installation of draught stripping or by simple repairs and maintenance to the windows themselves. However, it is important to note that it is not desirable to completely draught proof a building as ventilation is crucial to the breathability of the building. Draught proofing of historic buildings can significantly improve both heat loss and lose or rattling windows without preventing the natural ventilation required.

Secondary Glazing

11.11 Secondary glazing is a simple and affordable method of adding sound insulation and reducing draughts. Technology has improved and modern secondary glazing is virtually invisible, easy to remove and maintain. Special timber casements can be constructed and fixed to the interior of the frame using sections and mouldings to match. Depending on how the units are to be installed, the works will probably not require Listed Building Consent providing features of interest, e.g. internal shutters or mouldings are not affected.

Timber Double Glazed and UPVC

11.12 The introduction of timber double glazed windows in a Listed Building will only be considered in very specific circumstances. When a building is converted to an alternative use, e.g. an outbuilding converted into a granny annexe, Building Regulations may call for double-glazing to be installed and this may be accepted by Historic Building Officers, however, contact the Council to discuss any proposals. The only appropriate material for the windows and doors is timber. There are glazing products available which allow for a slim profile window, with a narrow air

gap and glazing bars, and these can in some instances, be acceptable. It is often best to use a simplified window style in these cases, to avoid pastiche and reduce the impact of multi-paned windows.

11.13 The Council will not support the installation of trickle vents in windows on a Listed Building. Passive ventilation can still be achieved by the introduction of airbricks or small vents in an external wall. Chimneys can also provide additional ventilation.

11.14 The Council ***will not*** normally agree to any proposals for the installation of UPVC units within a Listed Building as these are inappropriate, generally historically incorrect in their detailing and devalue the qualities of traditional buildings.

Timber

11.15 Most windows (whether glazed or not) in historic buildings were made from timber. It is a material that works with the building and provides the flexibility to adjust to expansion, contraction, subsidence and other natural occurrences. Repairs to timber windows typically do not require Listed Building Consent providing they are minimal and match the existing details. For example, a small area of rotten cill can be replaced and a section of frame repaired with a new piece of timber spliced or scarffed. This form of repair would not require Listed Building Consent. The use of polymer resin is not normally considered appropriate as it encourages rot in the adjacent timber. However, there may be special circumstances (e.g. where there are historic carvings or features within the timber) where resin may be appropriate.

Lead

11.16 Leaded lights are some of the earliest forms of glazed windows. They did not become common in large houses until the late 16th century and in small houses until the late 17th century. Early glass was cut into diamond panes (quarries) from blown discs of glass and held in place with thin strips of lead (cames). These early lattices did not open and were wired to the bars of timber mullioned windows or to iron bars (saddle bars). In the 17th century rectangular quarries became common and opening casements were introduced by inserting glazing into wrought iron and later, cast iron frames. The use of leaded lights continued into the late 18thcentury, when they were used mainly for cottages, and gained popularity in the 19th with the revival of the Gothic and Queen Anne styles and in the early 20th century with the vernacular revival of the Arts and Crafts period.

Example of leaded light windows (one on left also has secondary glazing)

11.17 Where leaded lights exist they should be retained and repaired by a specialist contractor. Original glass should be salvaged and re-used and any new glass should match the existing as closely as possible.

Iron

11.18 Late 18th and early 19th Century windows utilising intricate glazing bar arrangements are characteristic of cast iron windows. Simpler cast iron windows can be found on industrial buildings and were sometimes used as on outer frame for leaded lights.

Steel

11.19 Steel framed windows were common in the early-mid twentieth century, the best known of which was Crittal. These windows were typical of Art Deco buildings, but can also be seen in numerous cottages and houses. Crittal windows and doors are still in production today and the company can carry out repair work and improvements or replacements as required.

Example of a traditional Crittal window

DOORS

11.20 The design of a door can reveal some of the history of a building based on its style, size, and ironmongery. All original or historic doors should be retained. When considering the installation of a new door the design, should be appropriate to the building.

11.21 Doors make an important contribution to the character and appearance of historic buildings. Replacement doors and frames, where approved, will need to be located correctly in the wall face and any historic steps, thresholds, heads or arches should be retained.

Ledged and braced

11.22 This form of door is commonly found in cottages and farmhouses and was used both internally and externally. The external face comprised interlinked vertical planks bound together with internal horizontal boards. A typical door in an 18th or 19th century cottage is made from three to four planks, sometimes with a moulded edge, ledged for strength and fitted with a Suffolk latch and large strap hinges. The surface finish was typically painted. Bracing was added to external doors to give extra strength. The height of an old door will normally be lower than those produced today.

Panelled

11.23 Panelled doors are found in higher status buildings of the 18th and 19th centuries. Internal panelled doors of two panels with detailed mouldings could be combined with external panelled doors comprising four to six panels. The design of panelled doors changed with new architectural styles. They became common in modest houses from the Victorian period on. Most doors would have been painted and not stained or bare wood.

Door furniture

11.24 The door hardware, ironmongery or furniture is also indicative of the age of the door and of the building. Simple boarded doors would have strap hinges and 'Suffolk' type latches, whereas panelled doors often have 'H' or 'butt' hinges and round doorknobs. Some doors have original letterboxes and doorknockers; these are of historic interest and should be retained and reused where possible.

Suffolk Latch

Strap Hinge

Door knob

Letterbox

Fanlights

11.25 Integrated fanlights within the door are not traditional features. Glass was integrated within the door during the mid 19th century but not as a fanlight detail. Simple fanlights above doors were common by the beginning of the 19th century.

Fire regulations and doors

11.26 The conversion of large historic properties to multiple occupation flats or offices can potentially create a conflict between the retention of historic detailing and the requirement for fire safety. It is often possible to retain and adapt existing panelled doors to satisfy both requirements, by the use of intumescent strips, intumescent paint, smoke seals or more drastically the splitting of the door and insertion of fire resistant sheets (this method is an extreme solution and should be discussed with the Council). If self-closing devices are to be used then they should be the 'invisible type'. However the advice of the building inspector and fire officer should be sought.

STAIRCASES

11.27 Staircases are a key feature in any historic building; however, many original stairs have been lost or relocated as part of the building's evolution. Typical features found in a historic cottage can include steep and narrow stairs, low ceiling heights, traditional simple balusters, banister, railings, etc. Often original and historic stairs do not comply with current Building Regulations, but as they are existing features there is no requirement to update them to modern standards. In grander historic buildings, stairs are usually more elaborate and often finely moulded or carved.

Modifications to existing

11.28 If the original staircase exists there is a presumption in favour of its retention. The onus is on the owner to present a case justifying any modifications. The main consideration is the extent of loss of the historic fabric and the impact on the character of the Listed Building, including changes to the historic floor plan. Listed Building Consent will be required.

New stairs

11.29 The introduction of a new stair into a Listed Building will require consent and Building Regulations approval. Again, the impact to the historic fabric and floor plan will be considered. A structural engineer or other qualified professional should be engaged to ensure the new stair could be inserted without compromising the structural integrity of the Listed Building. The design and style and finish of the staircase should be appropriate to the age and type of building. Metal or timber spiral staircases are unlikely to gain Officer support.

Example of a simple and modest stair design

FIREPLACES

11.30 Prior to the introduction of fireplaces and chimneys in the late 16th and 17th centuries, houses were heated by a fire in the centre of the open hall and smoke collected in the roof space before emerging through a louver, through gablets, thatching or through the chinks in a tiled roof. Fireplaces built in existing houses were sometimes located in the cross-passage, using space no longer needed to control draughts to an open hearth. In new construction during the late 16th and 17th centuries chimneys were built with back-to-back hearths that served the two principal ground floor rooms. Fireplaces were normally constructed from locally produced brick; however, clunch was often used in villages where large clunch quarries existed, e.g. Harlton, Haslingfield, Orwell and Barrington. In grander houses the clunch was sometimes elaborately carved or dressed.

11.31 In the 18th century bread ovens were introduced, normally into the side of the fireplace.

11.32 The introduction of ranges in the 19th century provided a more efficient method of cooking and heating and resulted in the partial bricking up of large fireplaces. Cupboards were often formed on either side of the hearth and fitted with shelves. Smaller hearths were also common with simple painted timber surrounds and a mantle shelf. A small simple hearth also heated bedrooms.

11.33 In the early - mid 20th century ranges and grates were generally removed from kitchens and sculleries and openings reduced further when tiled surrounds were fitted.

11.34 When proposing to open up a blocked fireplace careful investigation should be undertaken to determine its development. It may be acceptable to remove a modern tiled hearth but 19th century or earlier fireplaces are of interest in their own right and are often part of a contemporary room design, and like other historic

features, should be retained in situ. Listed Building Consent is necessary for alterations to fireplaces.

DECORATIVE IRONWORK

11.35 The character of wrought iron fittings, railings, lamp-brackets etc is derived from the unique qualities of the material and from traditional smithing techniques. Wrought iron can be difficult to obtain, as it is no longer being produced. The main resource for wrought iron is through the recycling of redundant pieces. It is not possible to satisfactorily copy the character of wrought iron using mild steel. The presumption is that any existing historic ironwork should be retained wherever possible.

11.36 Old cast iron features, including railings, balconies, windows, fire-grates, door furniture and decorative beams and columns can be visually and architecturally important. Such features may carry the name of the foundry and the date of casting, thereby adding to the historic interest of the building. Broken cast iron can be repaired and damage should not be regarded as a reason for removal.

PARGETTING

11.37 The technique of pargetting, or decorative plasterwork, was popular and fashionable in the second half of the 17th century through to the middle of the 18th century. However, there are very few examples of pargetting that remain in South Cambridgeshire. Heavily pargetted buildings can be susceptible to weathering and over time continued limewashing can reduce the crispness of the detailing. Repair and design of pargetting is specialized and should only be carried out by a qualified and experienced plasterer. Listed Building Consent will be required for works other than minor repairs. The only suitable material for this detail is lime.

Example of pargetting (recently redone to match historic)

FENCES, BOUNDARY WALLS, RAILINGS AND GATES

11.38 The erection of fences, gates, walls and railings, of any height, within the curtilage of a Listed Building will always require Planning permission. Listed Building Consent will also be required if they are physically attached to the Listed Building.

11.39 There may be occasions where a fence may not be appropriate, and a native species hedge would be more suitable. A temporary wire fence could be erected whilst the hedge grows and matures although this is likely to require permission.

Fences

11.40 Typically built from timber, fences are found throughout South Cambridgeshire defining property boundaries and providing some level of privacy. Several different styles can be found, which include post and rail, picket and woven willow.

11.41 Picket fences are generally associated with cottages and usually include a small pedestrian gate of the same design. Traditionally they were unpainted, which when weathered, resulted in a natural colour that blended with the surroundings.

11.42 Post and rail fences are found in rural or edge of village locations and are generally associated with farmhouses and agricultural buildings where they are used to retain livestock. Where new fences are proposed within a residential curtilage it may be appropriate to plant a hedge adjacent to the fence to provide privacy.

11.43 Traditionally found in large country estates and around some churchyards, metal fencing is a practical and attractive form of stock fencing. Due to its association with parkland and high status buildings, this style of fencing is not normally appropriate in residential areas or as a boundary to dwellings in rural locations. In villages hooped metal fencing is a traditional feature of many Victorian schools.

11.44 Close-boarded fences are generally not appropriate within the setting of Listed Buildings. Fences constructed from woven hazel or willow panels are more traditional and natural in appearance but still provide privacy and some security.

Walls

11.45 Boundary walls are found in all parts of the district and vary greatly in their materials and detailing. Brick is the predominant form of construction and red brick was commonly used until the 19th century when white and buff coloured bricks made from gault clay became widespread. Bricks were laid in lime mortar in a range of bonds including English, Flemish and Garden wall and were generally finished with a half-round brick coping. Some walls, particularly those associated with large rectories and country houses were capped with stone.

11.46 Many historic walls that enclose boundaries built with clay bat, brick or brick and flint. These are all traditional materials found within locality. There is a

presumption that a new wall will be built using new materials and not reclaimed, but will have bond pattern, coping detail and mortar mix all to compliment the Listed Building.

11.47 New walls should generally be constructed from new bricks (see Chapter 12), unless the wall replaces an existing wall in which case bricks should be salvaged and reused. The colour, size and texture of the bricks, bond, mortar mix, joint detail and coping will need to be carefully considered and should be appropriate to the age and type of building.

11.48 Flint walls are a familiar feature in the south and east of the district where flint naturally occurs in the chalk. Traditional flint walls are a solid construction with occasional brick piers, in red or buff brick depending upon the age of the wall, and a brick coping. Brick walls with flint panels are a modern interpretation of a traditional form and are not generally acceptable as they are being used out of context.

11.49 Clunch (hard chalk stone) was used as a walling material in villages adjacent to the quarries and is generally laid as clunch ashlar (regular sawn blocks) with a brick plinth and coping.

11.50 Clay lump (unfired clay and straw blocks) was a cheap building material used from the late 18th to the early 20th century mainly in the construction of houses but also for boundary walls. As the blocks need to be kept dry they were laid on a brick plinth, rendered and capped with tiles or occasionally thatch.

Railings

11.51 Iron railings date mainly from the 19th century and are generally associated with buildings of that period, particularly in the larger villages that are more urban in character. Railings were usually inserted into holes cut directly into a stone coping that surmounted a low brick wall and backstays and brick piers were added for support. Flank walls, sometimes curved, and usually completed the enclosure of the front boundary. Few historic examples survive as most were cut down in the Second World War but where there is physical or photographic evidence the reinstatement of railings will be supported.

Example of park or estate railings

Example of basic railings

Gates

11.52 In addition to fences, the design and detail of components such as gates are also important. A gate can be a small pedestrian entrance or large enough to accommodate vehicles. The design of gates within the setting of the Listed Building needs to be carefully considered. In rural areas a simple five bar timber gate may be most appropriate, while in villages such as Cottenham close-boarded gates approximately 1500mm high are the tradition. Depending on the situation, the Council may support the installation of remotely operated gates, but the installation of new gates giving access to the Highway will also require Planning permission and any highway considerations will need to be addressed.

Original historic gate (left)

New gate (right)

11.53 Decorative metal gates dating mainly from the 18th and 19th century are a feature of many large buildings such as country houses, rectories and manor houses. The Arts and Crafts Movement of the late 19th and early 20th century led to a revival of craft skills and examples of decorative metalwork including gates can be seen in some villages. Installation of decorative metal gates is not normally acceptable unless supported by photographic evidence showing that such gates have been removed.

CHAPTER 12

MATERIALS AND CONSTRUCTION TECHNIQUES

NEW OR RECLAIMED MATERIALS

12.1 South Cambridgeshire District Council supports sustainability and environmental issues as a general rule.

12.2 Over recent years there has been an increasing move to use recycled building materials, and in particular bricks, slates and roofing tiles. The decision whether to use salvaged or new (but normally traditional) materials for Listed Building related work needs to weigh the circumstances of each case against the factors set out below.

12.3 Responsible salvaging of resources helps achieve sustainability objectives. When repairs are being carried out on a Listed Building it is important that materials are carefully removed, stored, and reused (if applicable). When whole or parts of buildings are demolished materials can be used successfully for new structures on the same site. Salvaged materials are particularly valuable in making repairs to Listed or even historic buildings that match the existing and this use should be given priority. For example, matching reclaimed roofing materials can be used successfully to patch a small area or make up for deficiencies when re-roofing.

12.4 On the other hand, the demand for second-hand materials can encourage theft, particularly when they are in short supply. It is important not to encourage the sort of markets in salvaged materials that lead to the needless and damaging stripping or demolition of historic buildings. Materials should only be reused if they are of good quality and fit for purpose and are appropriate to a building's construction, type and location.

12.5 The changes made to historic buildings over time are usually reflected in their materials and details. Using new materials, as opposed to salvaged ones, means that this tradition is continued as recent additions can be clearly read.

12.6 When carrying out major works to a Listed Building, such as adding an extension, the preferred approach is to use new materials. The new works will then be honest and 'of their time'. In many cases the new construction and materials will be of a traditional type such as brick, tile and stone. The use of new but traditional materials, preferably from a local source, helps promote their production and availability.

12.7 In the particular circumstances when modern design is appropriate, traditional materials can still be used, sometimes in new ways. Modern materials may also be appropriate in these situations, and can successfully be combined with traditional ones.

ROOFING MATERIALS

12.8 Many historic buildings within South Cambridgeshire still retain their original roof structures, which undulate or appear wavy. Most historic roofs are still structurally sound and any movement that is evident occurred early in the buildings history. This previous movement adds to the charm and character of the building. Roofing materials vary throughout the region and can also denote a hierarchy of building importance.

12.9 Different roofing materials require different roof slopes in order to shed rainwater and for durability. The pitches of roofing materials found within the district are:

- **Slate**: 25 degrees and above
- **Thatch**: 55 degrees and above
- **Pantile**: 35 degrees and above
- **Plain tile**: 40 degrees and above

12.10 One of the most common problems of a tiled roof is slippage due to rusting metal fixings and decaying battens. Routine maintenance is required to monitor the roof. The best solution is typically to relay the tiles, salvaging and reusing as many of the originals as possible.

12.11 Machine made tiles are more prone to frost damage than hand made tiles as the surfaces are more even and regular allowing moisture to be trapped. The Council encourages the use of traditionally produced hand made materials.

12.12 If the condition of the roof covering and structure require a complete stripping and overhaul, the new work will be required to comply with current Building Regulations. Careful consideration should be given to ensure that airflow and ventilation is not restricted and a modern breathable lining is used. In addition, the location of insulation should be discussed with a Historic Building or Building Control Officer to ensure the best solution is found.

12.13 If the quantity of salvaged tiles or slates is insufficient to re-roof the entire building, it may be best to reuse them on the most prominent and important part of the building, providing new on the other roof slopes.

Slate

12.14 Welsh slate was produced in great quantities during the Industrial Revolution and was transported to all parts of the country with the advent of the railways in the middle and latter half of the 19th century. Its fine grain meant it could be split into thin even thicknesses and mass-produced in uniform sizes, and a roof slated with this material appears thin, smooth and precise. Colours range from greys to blues

and purples. In most cases one type of slate was used, giving a pleasing natural colour and texture to the roof. However in the late 19th century different coloured slates were sometimes combined to create a decorative effect. Ornamental slates, such as fish scale slates, were also used often in combination with decorative ridge tiles.

12.15 Slate roofing is a double-lap covering laid in bonded courses on pitches from 30 – 35 degrees, though large Welsh slates can be satisfactorily laid at lower pitches. Usually each slate is fixed by two nails in the centre to prevent them being lifted by the wind. Slates may be fixed to battens or to boarding, which is often found in traditional roofs. Some slates, generally on prestigious buildings, are laid in diminishing courses with the largest slates at the eaves and the smallest at the ridge. Good slates will last for generations, but a slate roof covering can fail due to corroded fixings. When carrying out repairs or re-slating, good quality aluminium alloy or copper roofing nails should be used. If the fixings perish but the slates are still in good condition, they should be salvaged and re-laid. If replacement slates are required they should match the existing in colour, size, thickness and texture.

12.16 Traditionally ridges and hips were finished with lead rolls although mitred slates with concealed lead soakers were also used. More recently red or dark grey clay ridge tiles have been used and whereas these may be acceptable on outbuildings and cottages they are not appropriate for larger houses. Decorative terracotta ridge tiles and finials are a feature of some Victorian buildings. Where possible these should be salvaged and re-used following roofing works. Second-hand ornamental ridge tiles are in short supply but replicas are available from some roofing-tile manufacturers.

12.17 The Council supports the use of locally sourced materials from within the United Kingdom, particularly natural Welsh Slate on Listed Buildings. Slates from other parts of the world are unlikely to be appropriate on Listed Buildings due to the colour, texture, size, thickness, quality, weathering capability and environmental impact.

Pantiles

12.18 Clay pantiles appear to have been introduced into this country from the Netherlands in the 17th century and by the end of the 18th century their manufacture was well established in East Anglia. Local clays produced mainly yellow and pink tiles, which were made by hand until the mid 19th century when machine pressing was introduced. The size of pantiles was fixed by statute under George I at 13 x 9 inches. However, the actual profile of the tiles – the depth and form of the “S” shape – did vary and later forms had triple rolls and even interlocking flanges. This may lead to difficulties in repair work where a small number of compatible tiles are required to replace damaged ones. It is still possible to obtain new traditional clay pantiles and a list of sources is available from the Conservation Section.

12.19 Pantiles are designed to be laid to a single lap and a lower pitch (35 degrees) than plain tiles. They therefore provide a roof covering which is relatively light and which allows savings in roof timbers over, say, plain tiles. The single lap arrangement necessitates that each tile has two mitred corners, which prevent a build-up of thickness of tiles where four adjacent tiles meet. Pantiles have been vulnerable to penetration by driven rain and snow, which, in the past, led to them being laid on a thin layer of reed and haired plaster. In common with other types of roof, pantiled roofs are liable to water penetration at eaves, verges and abutments. General failure of battens and fixings is not uncommon, particularly in previously thatched roofs of steep pitch. Pantiles are sensitive to movements in the roof structure. Over many years, quite natural distortions such as sagging of the rafters, affects the laps between tiles allowing water penetration. This often leads to the tiles being pointed with mortar to such an extent that the roof looks unsightly.

12.20 Pantiles are best suited to roofs of simple form and can be used over a range of pitches from 35 degrees to 47 degrees, but may be found on steeper pitches where pantiles replace an original covering of thatch. Traditionally they were used on vernacular buildings such as agricultural buildings and cottages. Details that demand cutting and changes in plane such as hips, valleys and mansards, are unsatisfactory both visually and technically. Dormers therefore present problems and where new ones are to be introduced it is best to employ the traditional catslide dormer, which should be as small as possible in breadth and height if they are not to look awkward. Ideally the dormer roof should start well below the ridge and the window cill should be at eaves level.

12.21 Normal practice at the eaves is to bed the lowest course of pantiles on an under cloak of plain tiles giving sufficient overhang to shed water into the gutter. The spaces between the rolls in the tiles should be filled with slips of tile and pointed. The pantiles should rest on the under cloak to avoid a thick bed of mortar which is unsightly.

12.22 Half round ridge tiles are normally used, bedded into lime mortar. The undulating surface of the tiles requires a thick bed in the channels, which can look unsightly. The beds should be made as shallow as possible with tile slips or dentils inserted in the channels.

12.23 Verges present the greatest problems and plain left hand and right hand verges require different approaches. The left hand verge requires careful attention because the tile profile sweeps up to the left. Ideally half round or double roll verge tiles should be used bedded in mortar on a plain tile under cloak. If matching verge tiles cannot be obtained, the only alternative is to make the verge in lime mortar with plain tile slips, but again a minimum of mortar should be used. The right hand verge should be bedded on a plain tile under cloak in lime mortar and the upper course of plain tiles must be narrow to allow nailing of the pantiles. Where the gable leans in or out the tiles must be carefully cut and may be angled slightly to reduce the amount of cutting.

12.24 The traditional detail for an abutment is a mortar fillet or tile. In this situation, leadwork may sometimes be less visible, so that, where a roof abuts a brick parapet or wall a stepped lead flashing taken over the adjacent tiles will make a better joint. Where the wall is rendered the flashing may be tucked under the render.

12.25 The most satisfactory detail around chimneys is a lead flashing and apron. However, clay roof coverings look better without extensive leadwork so that the alternative of a mortar fillet with a layer of cut tiles and dentil slips may be preferred.

12.26 Hips and valleys are rarely encountered and should not be used in new work. In the case of a hip, the bonnet hip tile must be carefully bedded with as little mortar as possible and cutting and nailing tiles carefully done. Valleys are usually carried out with a lead channel and tile under cloaks.

12.27 Where re-roofing is required pantiles should be carefully salvaged for re-use and where additional tiles are required the use of second-hand tiles or new with a matching profile may be appropriate. Where difficulties are encountered in obtaining a match it may be possible to use different tiles on different pitches or new clay tiles on an inconspicuous slope.

Plain Tiles

12.28 The traditional roofs of hand-made buff tiles are one of the most important elements in the appearance and identity of the South Cambridgeshire area. Produced from gault clay, these tiles were manufactured until the end of the 19th century and were the predominant colour until the 20th century. A shortage of buff tiles led to the introduction of red tiles on historic roofs and this has become known as a “Cambridgeshire Mix”. Buff plain tiled roofs are found throughout the district but are more prevalent in the north particularly along the Fen Edge. Historically plain tiles were reserved for high status buildings such as manor houses, rectories and farmhouses and were normally laid on pitches of 45 degrees or more.

12.29 When repairing peg tile roofs the existing tiles should be carefully salvaged for re-use. Tiles, which are not sufficiently intact to serve as they are, may if sound, be trimmed to form half tiles for details. New or second hand tiles to make up any shortfalls should match the existing profile, texture and colour variations. Salvaged and new tiles should be mixed as randomly as possible.

12.30 Tiles will normally be laid over roofing felt, which should be “breathable” to reduce the risk of decay to historic roof timbers. Where, as in the case of some agricultural buildings, the tiling is visible from below, the felt should be omitted. If felt is used the roof voids should be ventilated. Modern treated, sawn battens will always be used for nailed tiles and be of a size depending upon the space between the rafters and gauged to give a headlap of 75mm. Where tiling is visible from below, riven

laths should be considered and tiles hung on oak pegs in the correct historic fashion.

12.31 Traditional peg tiles are not even in shape and often require to be sorted by a practised eye to produce an even lay. Also tiles traditionally fixed with a single oak peg will settle over time to a more even lay. This cannot happen when nails rigidly fix them.

12.32 Peg tiles have holes made by hand and are not uniform. It is preferred that traditional methods and materials be used on Listed Buildings, including the use of pegs. For modern practice each tile must be nailed into the centre of the batten. This will ensure a good fixing and the nails of the tiles will not line up, hence avoiding a regular and precise appearance. Nails should be of aluminium alloy or copper. Steel is too hard to allow safe removal of tiles for later repairs.

12.33 Mortars were traditionally used for pointing verges and bedding ridges and tile fillets. It is most important that hard, cement-rich mortars are not used as they will crack and allow water to enter. They will also permanently stick to the tile preventing its re-use in the future. Torching with lime/hair mortar to the underside of the tile joint at the batten was also a traditional practice.

12.34 Traditional details should be used on all historic roofs. If original features or details exist and are not capable of being retained, recording of historic details should be undertaken before any repairs are carried out and then replicated. Where later inappropriate repairs are to be removed the traditional details should be restored. Modern practice uses a tile-and-a-half in alternate courses to make up a verge, which is an inappropriate detail on Listed Buildings.

12.35 Old or matching half tiles should be used in all cases. Code 3 or 4 lead soakers should always be used at abutments. These go between the tiles and are not visible. Abutments with a render face such as the cheek of a dormer are formed with tiles and half tiles in alternate courses, which are tilted up at the abutment by a dab of lime mortar. This tilt leads water away from the weakest point of the detail. Abutments with brick are formed in a similar fashion but a tile fillet bedded in lime mortar covers the junction of tile and brick. More rustic roofs may have just a lime mortar fillet. Higher status and later buildings may have lead flashings.

12.36 At the eaves old tiles should be cut to form the short tiles in the under cloak. They will need to be drilled for nailing and it is important to follow any existing traditional detail. Gutters will normally be held on rafter irons or rise and fall brackets. The roof must discharge into the centre of the gutter. Hipped dormers and half hipped upper gables should not change pitch at the eaves.

12.37 Laced valleys are the traditional and most attractive detail. They are also most effective at shedding water. Laced valleys call for the utmost skill and can cause problems if attempted by inexperienced roofers. Valley tiles are not normally acceptable on historic roofs.

12.38 Matching clay hogback ridges must be used. Salvaged originals for historic roofs are becoming increasingly rare so that new tiles will usually be required. Modern half-round tiles will be obtrusive and spoil the appearance of the roof.

12.39 Plain tile roofs require the use of matching clay bonnet tiles or mitred hips. Bonnet tiles are nailed to a hip rafter. Half-round ridge tiles or hogback tiles must be avoided on short slopes such as dormers, but matching hogback tiles have been used on fully hipped main roofs.

12.40 Gambrel, or mansard, roofs have a small change in pitch between the two slopes on each side. Modern practice is to overcome this by the use of an intrusive lead flashing but traditionally the change in angle was covered by using two rows of cambered peg tiles (a small proportion of hand made tiles will always bend after traditional drying and firing).

Decorative Roofing details

12.41 Always retain decorative features such as ridge crests and gutter supports. Original drainpipes and gutters should be repaired or replaced with the same materials as the original.

WALLING MATERIALS

12.42 Within the district, there are many different types of traditional buildings constructed from a variety of materials, which were produced or found locally.

Timber

12.43 The timber framing tradition spans several hundreds of years. Earlier buildings dated up to the 1600s tend to be survivals from the higher end of the social scale. Constructed mainly from oak and elm, they are usually the work of skilled craftsmen using substantial timbers. Exposed timber frames and close studding often distinguish high status buildings. More humble cottages and barns have survived from the 17th and 18th centuries, and these make up the majority of the remaining timber framed buildings date from this period. By their nature the best quality timber was not always used. Frames may consist of hedgerow timber in the form of poles or of roughly sawn with a lot of sapwood. This increases the likelihood of decay and makes repair more difficult. Timber framing extended into the 19th century and these later frames were often of sawn softwood.

12.44 Framing, or load distribution, is of the post and truss type. In this form the building is divided into bays by posts, which support the roof trusses, which distributes the load of the structure. The majority of the roof load is transferred to the trusses by way of the purlins. The framing within the bays in this system is lighter infilling. The most important structural characteristic is the method of jointing which leads to a flexible, pin-jointed structure. This, combined with the original use of “green” timber usually means that movement and distortion will have occurred.

12.45 Frame members and joints can fail for the following reasons;

- Decay due to being overstressed or being altered
- Failure caused by inherent problems of design
- Quality of the materials employed
- Later changes to the use of the building
- Poor maintenance
- Changes in ground and environmental conditions

12.46 A framed building must be considered as a whole structure of related parts.

12.47 Steps should be taken to cure any problems affecting the integrity of the timber frame by ensuring that problems of water penetration, ground conditions and structure are resolved before timber frame repairs are undertaken. When repairs are undertaken they should be the minimum necessary to ensure the stability of the building and should be carried out using matching materials, traditionally spliced and jointed. Structural repairs using steel may be considered acceptable if it is the only option available and recommended by a structural engineer.

Wattle and daub

12.48 This was the traditional way of infilling the spaces between the timber frame until the fashion for plastering over exposed timbers, which began in the late 17th century, gave way to lath and plaster in the 18th century. Wattles (oak, hazel or other readily available hardwood sticks) were fixed vertically between timber studs and tied to horizontal staves known as ledgers, with twine, briar or other natural material. In tall narrow panels where there was no room for upright staves, short laths were wedged horizontally between grooves in the side of the timbers. The panels were then daubed on both sides with a mixture of clay, dung and chopped straw and finished with limewash.

12.49 Minor repairs can be carried out using salvaged or new daub but where a whole panel has become detached it may be possible to re-secure it using a system of screws and washers or wire ties. Sometimes loose areas can be held by making good around the edges or by capping the top. Where this is not possible the loose daub should be salvaged, broken up, mixed with a little water and chopped straw and reapplied to the wattles.

12.50 Where necessary, reinstatement /replacement of wattle and daub infill panels should be carried out using oak or hazel wattles tied with twine. Daub can be made on site from locally sourced chalky marl mixed with chopped straw or bought ready made from specialist suppliers. To avoid shrinkage, this should be as dry as

possible and when dry, cracks should be stopped with a similar mixture omitting the straw. Panels should be finished with at least three coats of limewash.

Lath and plaster

12.51 This method differs from wattle and daub in that it was applied directly onto the internal and external face of the timber frame and the space between timbers was left as a void. Early laths were generally oak and were split or riven by hand and nailed horizontally across the timbers with a gap of approximately (10mm) between each lath. In the late 18th and 19th centuries sawn softwood laths were commonly used. Lime and hair plaster was applied with a wooden float; the gaps between the laths provided a key and the hair gave strength and prevented shrinkage. The plaster / render was normally applied in three coats; hair was omitted from the final coat. The traditional finish was limewash, which could be coloured by the addition of natural pigments. External render was usually finished with a smooth float finish but in the 19th century roughcast render, which had gravel thrown onto the final coat, was often used to finish cottages. In the villages to the east on the borders of Suffolk and Essex there are a few examples of pargetting, decorative plasterwork formed by simple tools or moulded by hand.

12.52 Daub, the same mix that was used for earlier infill panels, was a cheaper alternative to lime and hair plaster and was often used in humbler buildings such as cottages. It was normally applied in one or two coats and was either finished with limewash or a thin skim of lime plaster.

12.53 Failure of internal plaster and external render is usually due a lack of maintenance and poor protection, the common results being disintegration of render and separation of successive coats. The latter may also be due to loss of “key” as a result of differential expansion between the render and background, or structural movement. When making repairs, further damage may be caused if work is poorly specified or undertaken using inappropriate repair methods and materials. It is therefore important to identify probable causes before attempting any repair. Where failure is localised it is usually possible to implement minor repairs without removing large areas of lath and plaster / render. Existing laths should be retained and where replacement is necessary due to failure of the laths, matching riven or sawn laths should be used. Guidance on repairs including mixes, preparation of background and application can be obtained from the SPAB website and specialist suppliers.

12.54 Listed Building Consent will normally be required for re-rendering unless it is confined to a small area of repair.

12.55 The traditional finish for lime and daub rendered buildings is lime wash. However, lime wash will not adhere to buildings which have had modern masonry paint used. In these situations, high quality micro porous masonry paint can be used instead.

Brick

12.56 Brick has been used as a building material in parts of Cambridgeshire since the 15th century but was generally only used on high status buildings. The earliest examples in South Cambridgeshire are found in the Fen Edge villages and date from the draining of the Fens in the mid 17th century. The early buildings are all constructed in red brick but in the 18th and 19th centuries local gault clay, which produces a buff coloured brick, was worked on a large scale. This clay produced at first a white brick that weathers grey, then later in the 19th century, the characteristic yellow "Cambridge stock" brick.

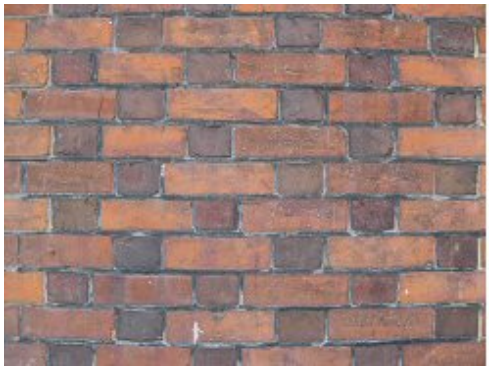
12.57 As bricks became cheaper and easier to transport they became widespread and were used for all types of buildings but particularly for agricultural buildings, cottages and farmhouses.

12.58 Repairs to historic brickwork should always be carried out using matching materials. Bricks should match the existing in colour, size and texture and mortar should match in materials used, strength, colour and texture. Original mortar can be analysed to determine the ratio of lime to aggregate (including size) and can often identify the source and type of the aggregate. Where individual bricks are badly decayed they can be carefully cut out and replaced with new matching bricks. Cracks can be "stitched" with new bricks and in areas where a greater degree of intervention is required walls can be strengthened with the addition of stainless steel ties inserted in the bed joints.

12.59 Rebuilding should only be carried out when brickwork is in danger of collapsing and all methods of repair and strengthening have been considered. Listed Building Consent will be required. Existing bricks should be carefully salvaged and reused and any shortfall made up in matching bricks. Bricks should be laid in lime mortar, matching the bond, joint details, mortar mix, colour, etc.

Bond Patterns

12.60 Bricks were laid in lime mortar, at first in English bond and later, in the 18th century, in Flemish bond. Some Fen buildings have Dutch gables, reflecting the 17th and 18th century links with the Low Countries. Details include sash windows set in reveals over shallow stone cills and with gauged or segmental brick arches, brick bands between the ground and first floors and brick dentil or saw tooth cornices. Occasionally bricks of a contrasting colour were used for the brickwork around the windows and for quoins, cornices and horizontal bands.



Flemish Bond

English Bond

Mortar Joints

12.61 Repointing is only needed where mortar has become loose, powdery, decayed or eroded and water has begun to penetrate the joints. Unnecessary repointing can be damaging. A recessed joint or mortar that is "chalky" and soft does not necessarily indicate the need for wholesale repointing. If mortar is not easily raked out by hand to a depth of at least twice the width of the joint, repointing is not necessary. Power tools should never be used to remove existing mortar – if they are needed then the wall does not require repointing. Lime mortar should always be used, as cement mortar does not allow the wall to "breathe" and to tolerate small movements in the structure of the building. Mortar that is harder than the brick will increase the risk of frost damage and cause the bricks to fracture or "spall".

Clay lump / Clay bat

12.62 Clay lump walling is a type of earth construction. It differs from other forms in that the material is formed into blocks and left to dry before construction, rather than being built as one solid mass. Its use is confined almost exclusively to Norfolk, Suffolk, Essex and Cambridgeshire, where it is found in the clay marl areas of South Cambridgeshire. It is thought to have originated in Great Shelford c.1800 and was used extensively in the 19th century mainly for the construction of humbler buildings including cottages, boundary walls and agricultural buildings.

12.63 The blocks are formed from clay mixed with water, barley straw, sand and often a small amount of manure, pressed into moulds approximately 450mm x 225mm x 225mm, then removed from the moulds and dried in the sun. When dry they are laid like bricks using clay slurry or weak lime mortar with a brick or flint plinth to protect them from damp. For similar reasons, clay lump buildings are invariably designed with overhanging eaves, often with thatched roofs, with surfaces being rendered and limewashed. Some agricultural buildings were tarred, as this was cheaper than render and prevented animals from licking the surface. Boundary walls were protected by a coping of tile or thatch.

12.64 It is most important to protect clay lump walling from damp penetration; failure to do so will ultimately lead to disintegration. Regular maintenance of roofs, plinths and surface coating is therefore necessary to prevent water ingress and long-term damage. Repair is relatively easy as faulty blocks can be cut out of the wall and replaced with new blocks either made on site or purchased from a specialist supplier. Occasionally salvaged blocks from another site can be used. Minor repairs such as open joints; cracks and small holes can be filled with fine clay tamped home with a rod, a soft lime mortar or a clay and straw mixture.

12.65 Lime render should be repaired but where this has been replaced with a hard cement based render, consideration should be given to re-rendering with a soft lime mix. Traditionally fixing wooden pegs into the blocks and looping string or tarred twine between them provided a key for the render. This method is still carried out today. The use of expanded metal lath is more common, although fixing this can be a problem.

Clunch

12.66 Clunch is a soft limestone from the Lower Chalk found in the southwest of the district. Historically it was quarried in Little Eversden, Harlton, Barrington, Orwell and Haslingfield and was used for the construction of churches, agricultural buildings, dwellings and boundary walls. Apart from the medieval churches the majority of the surviving clunch buildings date from the 19th century although several early domestic buildings have finely carved clunch fireplaces. Clunch provides an even consistency and is easy to carve.

12.67 Until the 18th and 19th centuries clunch walling was mainly coursed rubble with larger stones for the quoins; carefully worked clunch was confined to windows, door heads and similar features. In the 18th century walling became more regular and by the 19th century ashlar (large dressed blocks with fine joints) was the preferred method of construction for all types of buildings although some agricultural buildings were still built from clunch rubble.

12.68 Like clay lump, clunch is susceptible to damp penetration and walls were usually built with a brick plinth and overhanging eaves, often with thatch, slate or pantiled roofs. Rubble walls were usually rendered and limewashed while ashlar was not given a surface treatment. A coping of tile generally protected boundary walls.

12.69 It is most important to protect all walling from damp penetration; failure to do so will ultimately lead to disintegration. Regular maintenance of roofs, plinths and surface finishes is therefore necessary to prevent water ingress and long-term damage. Repair is relatively easy as faulty blocks can be cut out of the wall and replaced with new purchased from, a quarry. Minor repairs can be carried out using lime mortar, tile or stone indents.

12.70 Clunch, like all stone, has a limited life. Its decay may impair the aesthetic appearance of a building or affect its structural stability, and proper remedial measures will be needed. Surface scaling is characteristic of clunch ashlar and it may be necessary to remove friable material with a stiff bristle brush and consolidate the surface with limewash or a shelter coat (a coloured surface treatment of lime and fine sand or stone dust). Cementitious render and masonry paint should never be used, as moisture trapped behind an impervious membrane is unable to evaporate from the wall and will damage the surface. Repointing and repairs to small areas can be carried out using a lime mortar no stronger than the clunch. For larger repairs it may be more appropriate to apply a lime render or replace stone.

Flint

12.71 Composed almost entirely of silica, flints developed as a result of chalk deposits and are found mainly in the south eastern half of the district. Although unrelated to chalk, flint originated from marine organisms with skeletons of silica that after the creatures' death dissolved into the chalk and were re-deposited in a more stable form as flint nodules. The traditional form of flint walling was to lay rough nodules of flint in beds with one side crudely faced or knapped. However, flint can be finely knapped into small blocks and decorative patterns created. Both methods can use brickwork to frame window and door openings or to turn corners. Whole flints were also used and some buildings and boundary walls are composed solely of unknapped nodules.

12.72 Flint has a long history of use and was used extensively in the Middle Ages for the construction of churches. It was seldom employed after the middle of the 16th century, except for a brief revival in the 19th century. By the 17th century only humbler buildings, such as cottages and farm buildings, were built of flint: a vernacular tradition that continued until the late 19th century. In addition to buildings, flint was used extensively for the construction of boundary walls. Traditional walls consist of two parallel leaves of flintwork containing a central void filled with flint rubble. The walls are often bonded at intervals with long flints that tail into the rubble core. Flints were laid in courses where nodules were of an even size, or randomly which utilised flints of different sizes. As flints fitted loosely together, large quantities of mortar was needed to fill the spaces and construction was very slow as each lift had to be allowed to dry out slowly to achieve a firm set in order to prevent possible failure. Shuttering was frequently used to support the flintwork while the mortar dried and to ensure that a straight edge was maintained. This method resulted in an even finish but with wider joints than "freehand" construction.

12.73 Repairs to flint walling require considerable skill and should be carried out only by a specialist contractor. Localised displacement of flint can be easily repaired using the salvaged flints laid in a lime mortar. Mortar should match the colour and surface texture of existing mortars. Repointing should only be carried out when the existing mortar has been eroded to such an extent that the flints are likely to

become displaced. Where large areas of facing flintwork have become detached from the backing (normally flint but sometimes brick) stainless steel brick ties or roof tiles can be inserted to provide reinforcement between the two faces. Rebuilding is a last resort and then as much of the original flint should be re-used as possible. Detailed records of the remaining original construction should be made before work commences, to ensure that the reconstruction is a faithful replica. Planning permission and Listed Building Consent will normally be required.

FLOORING MATERIALS

Timber

12.74 Medieval floorboards were predominantly oak and were either riven, axed or pit-sawn in widths of up to 450mm or more. The boards tended to be laid parallel to, and rebated into, the upper edges of floor joists which were laid flat. Elm boards, typically (390mm) wide, were common in the 17th century and softwood came into general use in the 18th century at a time when floors began to be wholly or partly carpeted. Tongued and grooved boards appeared in the 1820s.

12.75 Old boards can be repaired in situ by piecing–in sections of the same species of wood, with matching grain. In rare situations where a boarded floor is beyond repair, new boards can sometimes be laid over the old as a means of retaining the original floor as part of the archaeology of the building. However, careful thought needs to be given as to how the new floor level will affect adjacent architectural features such as doors, skirtings, architraves, thresholds, hearths etc. and whether structural problems may also arise due to the increased height.

12.76 A sloping floor that has reached an uncomfortable state can sometimes be improved by fixing tapered firring pieces to the top of the existing joists. This may enable boards that have not become too distorted, to be re-laid as an almost level surface. A floating floor may be considered to provide a level surface for new materials to be laid, however it may have an impact on the skirting boards, doorframe and door height.

12.77 Early ground floor boarded floors were often nailed to rough joists laid directly on earth, an arrangement that could encourage decay due to excessive dampness. Later boarded floors were laid on joists supported on brick piers or sleeper walls leaving a void usually with the provision for ventilation at the perimeter. It is important to ensure that air bricks or other means of venting such voids are kept free of rubble, earth and plant growth and that contact between timber and walls is avoided to prevent damp.

Brick and pamment

12.78 Most early brick and pamment (clay floor tiles) floors were bedded directly on the earth and have acquired a protective and attractive patina over the years. Their surfaces are seldom level but can contribute to the aesthetic value of a room.

There is a strong argument in favour of retaining a brick floor with minimal disturbance. Many old bricks are of non-uniform dimensions and of irregular thicknesses due to wear. It can be difficult to lift and reverse them and set them to the level of the renewed lime/sand base. Traditionally the joints between floor bricks are not filled with mortar, but are closely butted. The lack of mortar will allow any moisture present to evaporate through open joints instead of through the bricks.

12.79 When there is no alternative and the floor must be relaid, the bricks should be set close together on a bed of lime and sand above a well compacted hardcore. A lime / sand mix is brushed into the narrow joints, which will solidify.

12.80 Relaying old bricks above a dpm can affect the appearance and durability of the floor. Salt contamination, in the form of white crystals, originally absorbed from the subsoil, may migrate to the surface and may in turn absorb moisture from the air and create a damp floor. Regular brushing may become necessary to reduce the deposits.

FINISHES

Paint (internal and external)

12.81 Vernacular buildings were usually decorated simply, using materials found locally. The most common of these materials was limewash. Limewash (discussed in greater detail later in this chapter) is a durable and breathable material, used externally on timber framed or rubble stone buildings and internally applied to partitions. Traditionally seen in a white colour, it is capable of being tinted or pigmented to create an earthy colour- of reds, oranges or pinks.

12.82 Grander buildings, from the Georgian period onward, would have been finished using higher quality materials, such as lead based or oil based paints. Soft distemper is a water-based paint that primarily comprises a white base pigment bound with glue size. This basic mix can be tinted with pigments to give a wide range of colours, including blues, greens and various earth tones. Soft distemper has a velvety, matt finish and is used almost exclusively internally due to its water solubility. Soft distemper is not to be confused with oil-bound or 'washable' distemper, an oil-based water paint that was the forerunner to modern emulsion.

12.83 Lead paint comprises lead pigment, usually lead carbonate bound in oil. The pigment creates either a white paint or a base for tinting with colour. Historically, linseed oil was the usual binder and turpentines the thinner, their proportions determining whether the finish was matt or semi-gloss. From the 20th century, the flow, gloss and drying time was improved by using an alkyd resin medium and the addition of titanium dioxide pigment boosted the covering power.

12.84 It can be worth finding out what was used on a building, which is done through paint analysis. A cross section of the material is analysed, possibly chemically tested, to determine what was used previously, including the colour and the material of the layers applied over the years. This information can inform those restoring a building or room back to an original decorating scheme.

12.85 Listed Building Consent is generally not required to repaint the inside or outside of a Listed Building if it has been previously painted. However, Listed Building Consent is required where the surface has not previously been painted. In addition, it is important that an appropriate product is used. As indicated previously in this document, it is essential for a historic building to breathe and retain its flexibility. In order for this to be maintained, any paints should be vapour permeable - porous and breathable. The main difference between modern and traditional paints is that modern paints are made with synthetic and chemical materials whilst traditional paints were made from natural materials.

12.86 It is possible that due to the age of most Listed Buildings, there have already been inappropriate materials used on the building. For instance, a non-breathable paint could have been used on the walls, such as an acrylic paint, which contains a plastic-like substance.

12.87 Any material that will trap moisture within the wall will prevent natural evaporation, which can lead to damp, condensation or mould growth. Good quality finishes, such as lime wash or linseed oil paints can last for years and allow the natural evaporation of any moisture. Rooms where the moisture content is high should have the appropriate finish to prevent mould and mildew from growing.

12.88 Further advice and information on which paints are appropriate can be found on the English Heritage or SPAB websites.

CLEANING METHODS

12.89 Cleaning finishes off of materials can prove difficult, as the act of removing the finish could cause damage to the surface of the material. Removing paint off of surfaces such as brick or timber, if not carried out properly, can result in the loss of the brick face or remove finer details from the timber. It is critical that each case be reviewed to determine what, if any, method is appropriate. This section does not deal with the cleaning of monuments, war memorials, or other freestanding structures, but aims to provide a general overview of the options for cleaning timber or masonry, either internal or external.

12.90 Paint is one the most common finishes people seek to remove. Many years and layers of paint can be unsightly or even cause problems through the use of acrylic paints. Also common is the removal of cementitious or pebbledash renders. These too can be visually displeasing and lead to problems with moisture being trapped. Cleaning the surface of pollution and soot is another scenario, however,

less common in South Cambridgeshire. Paint or render are both capable of being removed, however, selecting the appropriate method of removal is vital.

12.91 It is important to first try and assesses the area in question, and asks some basic questions:

- Are there areas where the finish has started to come off already?
- What does the sub-surface look like?
- What is the structure of the building?

12.92 On the market today are many solutions, remedies, etc. but most are too harsh and inappropriate to historic fabric. There are air or water high-powered treatments, the use of solvents and even lasers are being used to assist in cleaning delicate surfaces. The Council cannot recommend a particular system or product, but The DOFF and JOS systems are widely used and have been proven to be gentler on historic fabric. However, any cleaning of a Listed Building will require Listed Building Consent. Contact the Council for advice. It is important not to saturate any historic building.

12.93 Sandblasting is inappropriate to any part of a Listed Building and will not be supported by the Council.

The JOS system

12.94 JOS is essentially a wet, mild jet abrasive cleaning system, made suitable for conservation applications by a controllable low pressure vortex of air, water and granulate, swirling almost parallel to the surface of the stone. The swirling action cleans away unwanted matter more carefully than conventional right-angle impact systems.

12.95 JOS is a chemical-free and environmentally friendly system, in which dust and slurry levels are kept to an absolute minimum. It is gentle enough to be used on delicate surfaces, including mouldings and areas of carving. Experience has shown that this system is unsurpassed in its efficiency in removing black sulphate skin from limestone.

The DOFF system

12.96 A normal water supply is taken into a high-pressure pump, and the pressure increased to the appropriate level before it enters the hotbox where, if necessary, the temperature is increased up to a level of 150°C. This is then fed through high pressure heat resistant hoses to the nozzle. Special jets, efficiently directed to the surface, cut through and remove unwanted matter.

12.97 The ability to maintain high temperatures and low pressure is a particularly special feature of the DOFF system. However, simultaneous high pressure and high temperature can be introduced if necessary for the removal of paint and other heavy coatings. Heating of the surface is controlled and it dries within minutes. Depending upon the requirements of the system, a range of appropriate lances and nozzles are available.

CHAPTER 13

THATCH

BACKGROUND

13.1 The previously adopted document regarding Thatching in South Cambridgeshire has been incorporated into this supplemental planning document. This document supersedes the previously approved policy document.

13.2 It is generally acknowledged that thatch is a distinctive feature of the English landscape, particularly in the south and the east, and should be conserved as part of our built heritage.

13.3 Thatching materials and the methods by which they are applied reflect both the broad geographic and economic character of their areas over time. The survival of regional diversity in thatching is, therefore, a central aim of conservation policy in those areas where the character can be firmly identified.

13.4 South Cambridgeshire has historically been a predominantly arable area and consequently wheat straw has been the most widely available thatching material. This material is known as “longstraw” and the extent of its use helps characterise the district. However on the fen edge areas of the district some “water reed” has always been used. The Rural Industries Bureau particularly promoted this material in the first decades after the Second World War. The Bureau encouraged the use of water reed in order to stop the wide scale removal of thatched roofs following the introduction of the combine harvester, which rendered straw unusable for thatching.

13.5 The following criteria will apply in the consideration of proposals to alter a thatched property:

- As with all Listed Building Consent applications, applicants must be able to justify their proposals, to demonstrate why works which would affect the character of the Listed Building are desirable or necessary in terms of the preservation of the historic building.

- A full survey of the roof from an independent thatching consultant will normally be required as part of the Listed Building application, to explain and justify any proposed alterations. Short-term economic arguments will not be considered as sufficient justification.

- The Council will resist Listed Building applications for an alteration in thatching material or thatching detailing which is not traditional to the specific location or landscape character of the property.

- The Council will resist Listed Building applications which result in a change to the external appearance of the historic building by introducing a different material, method of thatching or detailing.

- Listed Building Consent will not normally be approved for the removal of original base layers and material of archaeological or historic importance. These will include medieval smoke-blackened thatch or timbers surviving from the time prior to the erection of a chimneystack, or the remains of an original louver.

CHANGE OF ROOF MATERIALS

13.6 Listed Building Consent will always be required for a change in roof materials, as this will affect the character and appearance of the historic building. The Council will not normally support Listed Building applications which compromise the special historic interest of the building.

13.7 A change in thatching material or the method of application could significantly alter the character and appearance of a historic building and may destroy evidence of the original material. Consequently, replacement of original thatching material (in particular longstraw) with another material will not normally be granted Listed Building Consent.

13.8 For the avoidance of doubt, Listed Building Consent is required, but would ***not*** normally be supported for the following potential changes in thatching material:

- Longstraw to water reed.

- Longstraw to combed wheat reed or wheat straw prepared and laid in a different manner to traditional longstraw.

- Combed wheat reed to longstraw or water reed unless this is a reversion to an earlier material.

13.9 The above guidance is supported by the following Listed Building / planning appeals:

- Lordship Cottage, Fardells Lane, Elsworth: Change of thatching material (and method of application) from traditional longstraw to flail threshed combed long thatching straw on front elevation. Appeal dismissed 31 August 2005. Appeal ref: APP/W0530/E/05/1176368.

- Magdalen Cottage, Stoney Lane, Stocklinch, Somerset: Change of thatching material from combed wheat reed to water reed. Appeal dismissed 3 November 2004. Appeal ref: APP/R3325/E/04/1148702.

REINSTATEMENT OF THATCH

13.10 The following principles will apply to the consideration of proposals to reinstate thatched material:

- Listed Building Consent will always be required for a reinstatement of thatching material, in order to ensure that material appropriate to the individual building and the landscape character of the area is utilised.

- The Council will use its planning powers, grant scheme and advisory role to secure the reinstatement of original thatching material on historic buildings, particularly where there is photographic or physical evidence for the particular material originally used on the building (either longstraw or water reed).

- The Council will discourage the use of materials and methods of thatching which are not traditional to the district.

- The Council will seek the retention of a "reed fleeking", sometimes known as flecking, which is a woven mat visible between the rafters of early roofs, where it exists, to form the underlay for the new thatch.

- The Council will discourage the use of felt underlay or polythene sheeting when reinstating thatch, as it will inhibit drying out and may cause decay from condensation, but will accept breathable materials.

- The Council will require that prior to the commencement of works the use of anti-fire devices should be discussed and approved in writing with the Council's historic buildings officer. Any such devices should be visually appropriate and not detract from the character or appearance of the historic building.

13.11 In the period between First and Second World Wars and immediately after the Second World War, there was a shortage of skilled thatchers and a lack of suitable straw. This resulted in the covering of large numbers of thatched roofs with corrugated iron and in some cases corrugated asbestos, asbestos slates, timber shingles or tiles. Some buildings still retain their "temporary" roof covering due to the cost of replacement. Reinstating thatch will require Listed Building Consent and the applicant will be expected to provide physical or photographic evidence of the type of thatch and the detailing of the ridge and dormers. Where there is no photographic or physical evidence the local thatching style may provide an indication. The presence of a reed fleeking will not necessarily indicate that the roof was once thatched in water reed but where a fleeking exists it should be retained as part of the historic character of the roof. Existing thatch ties (plant material, twisted tarred or untarred cord) should be retained as evidence of a historic method of longstraw thatching.

13.12 Reinstating thatch may require strengthening of the roof. Thatch is one of the lightest roofing materials and rafters are often no more than thin poles. When reinstating thatch existing historic roof structures should be retained and if required new timbers placed alongside the original. New timbers should be of a similar size and section to the existing. Listed Building Consent may be required if the repairs are extensive and will alter the character of the roof.

13.13 Re-thatching roofs that have lost their thatch will be subject to the requirements of the Building Regulations, which recognise that thatched roofs (and also roofs covered in wood shingles) provide a potential risk of fire spread between properties.

13.14 Buildings with these materials are therefore required to be isolated from one another and generally need to be at least 12 metres away from the property boundaries. The repair or replacement of an existing thatched roof would not normally be required to comply with the Building Regulations requirements for isolation. However, the installation of thatch on a corrugated iron / asbestos covered roof, which had previously been thatched, would be expected to meet the requirements for a new thatch roof in terms of isolation from boundaries. Where a property is closer than 12 metres from a boundary an application for a relaxation of the Building Regulations may be made, possibly using the guidance contained in "The *Dorset Model" – Thatched buildings, new properties and extensions,* Published by West Dorset District Council.

13.15 In the 1970s "combed wheat reed" was introduced from the West Country and has been replacing the traditional longstraw thatch. Combed wheat reed is wheat straw but it is prepared and applied to the roof in a different manner, resulting in a crisper finish, similar to that of water reed and consequently is a change in the character and appearance from traditional longstraw thatch.

TRADITIONAL REPAIR

13.16 The following guidance is offered to assist with the achievement of best practice in implementing repairs to a thatched property:

- The Council will recommend that a detailed survey of the roof be undertaken to identify appropriate techniques, the extent of any surviving historic material, and inform the specification for any proposed repairs, prior to commencing work on the roof.

- In order to ensure that locally characteristic features are not lost the Council will encourage the employment of experienced thatchers who work in accordance with local tradition.

- Complete stripping is rarely needed on a longstraw thatch roof; therefore the Council will aim to ensure that only defective thatch is removed to a sound base. The Council will therefore encourage the tradition of small-localised

repair and would normally resist total rethatching on Listed Buildings when repairs may be more appropriate.

- Localised repairs should always match the topcoat in method and material.

- Where a "reed fleeking" exists (the woven mat visible between the rafters of early roofs) it should be retained.

- Detailed justification will be required for timber repair or strengthening of a historic roof structure, retaining original timbers in situ. New timbers, where necessary, should be of a similar size and section and normally placed alongside the existing. Listed Building Consent will be required if extensive timber replacement will alter the form or character of the roof.

13.17 The practice of water reed thatching today normally involves the entire replacement of the existing thatch and consequently a water reed roof is almost never repaired (other than reridging). However, a form of redressing has been carried out in the past by traditional thatchers and is occasionally carried out today in addition to localised repairs.

13.18 Localised repair by patching is a tradition in longstraw thatches and can substantially extend the life of the main coat. Until as recently as the 1950s, thatchers spent more of their time undertaking such repair rather than recoating. Ridges will need to be replaced on all thatches after approximately 15 years; other areas prone to decay are valleys, chimney abutments and dormers.

13.19 The actions of birds and rodents, or casual damage can also provide opportunities for decay. In such cases the same material and method should be adopted to repair a localised area.

13.20 Replacement ridges should normally be carried out in the same material as the existing. Where the existing ridge on a longstraw thatch is blockcut, encouragement will be given for the reinstatement of a traditional flush ridge.

13.21 The stripping of eaves and barges during recoating of a longstraw thatch is not considered to be necessary and will result in the loss of archaeological evidence. The underlayers of thatch may be of considerable age due to the practice of stripping only the decayed material from the surface prior to repair, but this will not be visible at the eaves and barges if they are stripped out and consistently replaced.

13.22 Rethatching may occasionally involve major repair / strengthening of the roof structure. Where this is necessary the existing historic roof structure should be retained and new timbers placed alongside the original. New timbers should be of a similar size and section to the existing. Listed Building Consent will be required if the repairs are extensive and will alter the character of the roof.

13.23 Occasionally a build up of moss occurs under the surface netting and it can be gently removed if desired. However research is inconclusive as to whether the moss does more damage by retaining moisture than it does by forming an extra coat on the thatch but water will shed much quicker if moss is removed. Performance is not always linked to appearance and a roof can present a varied appearance without being inferior to a much neater new thatch.

13.24 Overhanging trees may create a damp environment causing premature decay and should be regularly cut back. In some circumstances permission may be required for these works.

13.25 As with all building repairs, works should be based on an informed specification and a schedule of works relevant to the particular thatched building. For example there will be many occasions where a relatively small repair is better for the building than complete stripping, and if there are problems with the supply of materials these are likely to be less for a minor repair than a recoating.

TYPES OF THATCH

Longstraw

13.26 Longstraw is threshed wheat straw (traditional varieties are Maris Huntsman or Maris Widgeon) although in recent years the use of “Triticale”, a cross between wheat and rye, has increased. As the name suggests the length is crucial and it is generally thought essential for this material to be at least 750mm (30inches) long. It is also recognised that the strength and texture of the straw will be greatly improved if the crop is cut whilst the stalk is still partially green and threshing is done carefully when the corn has ripened, to avoid damage to the stem.

13.27 Longstraw thatch is distinguished readily from other thatching techniques, by the amount of preparation it receives and the method of application to the roof. The straw is laid on the ground in layers to form a bed without regard to the alignment of the stems. It is then wetted, in order to make it more pliable and to enable it to be compressed when applied to the roof. The damp straw is then drawn from the bed by hand and formed into yealms that are then applied to the roof. Both butt ends and ears should be visible.

13.28 Longstraw, when applied directly to an existing roof, is fixed on top of the existing thatch, which has earlier been raked down to a firm base. It is not fixed to the rafters as other forms of thatching material. Under-layers of thatch can, therefore, be of considerable age and several examples of mediaeval smoke-blackened thatch exist in the district.

13.29 Yealms are laid on the roof in vertical courses, held in place with hazel spars and finished with external fixing at the eaves, verges and ridge. The open composition of the yealms means that it is not necessary to dress the material in place and, therefore, it has a softer, more rounded and “poured on” appearance than, for

example, combed wheat reed. The appearance is neatened by raking out and by cutting the eaves and verges with a long eaves-knife.

13.30 With proper maintenance the topcoat or 'wearing course' of a longstraw thatch roof (possibly overlaying a medieval base layer) would be expected to last from 25 – 30 years.

Water Reed

13.31 Water reed *(Phragmites australis),* is recognised by its brown feathery seed head growing on a single stem with broad spear like leaves and it varies in length from 1 – 2.5 m (3 – 8 feet). From the marshes and fens and often known as "Norfolk Reed", demand has now outstripped supply and, it is estimated, that three-quarters of the water reed used in Britain today is purchased from Europe. "Mixed" reed is occasionally used, being reed mixed with shoof grass and other plants, which grow in company with it. Harvesting takes place in winter when the reed is cut and formed into bundles ready for thatching.

13.32 Little preparation is required on site other than butting each bundle to align the stems and grading the bundles according to length and quality. The bundles are applied to the roof in horizontal courses from the eaves to the ridge and are fixed directly to the timber structure of the roof with lateral metal rods (sways) and iron hooks hammered into the rafters. In this region it is usually a single layer material with one coat replacing another when worn. This requires the entire thatch to be removed, which means that there is unlikely to be any underlying historic thatch. If a fleeking exists this should be retained.

13.33 The reed is pushed up into position with a leggett with the butt ends facing downwards to create an even surface, which results in a uniform, crisp, sharp appearance across the body of the roof. The reed coat is rarely as thick as in the straw styles and faithfully follows the lines of the roof structure, emphasising features such as dormer windows. There are no visible fixings on the eaves or verges, the reed being secured by its own concealed fixings and by its own tension against the roof structure, which provides a "kick" from the eaves.

13.34 A newly rethatched roof in water reed would be expected to last in excess of 60 years, before requiring complete stripping and rethatching with new material.

Combed wheat reed

13.35 Combed wheat reed, Devon reed, virtually undamaged straw and flail threshed long thatching straw are all names which are given to a "hybrid" which is not a traditional method of thatching in South Cambridgeshire. This form of thatch covering, which is traditional on the shallower roofs of the West Country, uses wheat straw, the same raw material as longstraw but it is produced by passing the straw through a reed comber, which removes the grain without crushing the stems and binds the straw into bundles with the stems all lying in the same direction.

13.36 In its application on roofs in East Anglia existing thatch is not normally stripped beyond the decayed upper layer and the bundles are applied to the roof in a similar technique to water reed, with the butts of the straw facing downwards. The bundles are loosened on the roof and the straw is dressed into place with a leggett. The final appearance is achieved by driving the material up as with water reed. When weathered a combed wheat reed thatch may resemble the precision and crisp nature of a water reed thatch, although the build-up of layers gives a more rounded appearance and the clipping of the eaves and verges creates a softer appearance.

13.37 Given appropriate maintenance a combed wheat reed thatch will last between 25 – 40 years.

TRADITIONAL THATCHED ROOF DETAILS

Ridges

13.38 Ridge details vary according to the region and are often very local in origin. Historically in South Cambridgeshire, ridges on longstraw roofs were formed flush with the main coat, of the same material, and finished with a simple pattern of liggers. Ornamental blockcut ridges were introduced in the 1950s and although of straw they lack the simplicity of a traditional flush ridge. Detailing at the end of the ridge varies depending on whether the roof is hipped or gabled and also on the style of work created by the individual thatcher.

13.39 Reed is not a pliable material and ridges on water reed roofs were historically of sedge (*Cladium mariscus*) but more recently created from straw. They are always "block cut", sometimes with decorative patterns of liggers, although traditionally a straight cut ridge was usual until the 1950s when ornamental cut patterns became popular. Fixings are visible in the form of hazel liggers and pattern rods.

13.40 Ridges on combed wheat reed are formed from straw and therefore a flush ridge is most appropriate and will normally be required.

Dormers

13.41 Due to the greater thickness of thatch that is often found on longstraw roofs, features such as dormers can be swept over. Although this is not always the case, this type of dormer is characteristic of South Cambridgeshire and is generally referred to as an eyebrow. Some longstraw roofs have gabled dormers and these are normally thatched in longstraw with a straw ridge to match the main roof.

13.42 The application of water reed and trimming to the material for dormers in water reed roofs creates a more angular appearance. Tiles and slates were often used on gabled dormers on both longstraw and water reed roofs and photographic evidence suggests that some of the tiled dormers in this district date from at least

the 19th century. Where historic tile or slate dormers exist they should be retained and not replaced with thatch.

Verges

13.43 In South Cambridgeshire it is traditional to cut the verges on a longstraw thatch almost flush with the gable using a long eaves-knife. Wrap around verges, which are seen in longstraw thatch in other counties, are not a traditional local feature and consequently would not be encouraged in this district.

Abutments

13.44 The usual detail employed at abutments with chimneys or parapet gables is the mortar fillet. Lime mortar is recommended as it is more flexible and less prone to cracking than cement and is less damaging to historic brickwork. Lead flashing is not a traditional detail and as it is often visually intrusive would not normally be encouraged in rethatching or reridging works.

Netting

13.45 Thatch, particularly new longstraw thatch, is attractive to vermin and birds as a source of food and also as a nest or nesting material. To prevent damage, galvanised wire netting is normally provided, lightly fixed in order to provide speedy removal in the event of fire. Netting is laid from ridge to eaves and the edges of the sheets are not overlapped. The sheets are joined at the ridge and fixed with clenched nails, wire hooks or spars at eaves and barges.

13.46 Netting is not normally considered necessary on water reed although where straw or sedge has been used on the ridge this area alone may be netted.

Longstraw thatch outline specification

13.47 The following is a general specification for Longstraw thatching:

- Prior to rethatching a full survey of the roof should be carried out to enable the preparation of an informed specification and schedule of works relevant to the particular building.

- All old wire shall be removed. All decayed thatch shall be removed to a sound base, but there should be a presumption in favour of preserving old thatch where this is practicable.

- The roof shall be thatched in good quality drum or flail threshed longstraw, normally a hollow stemmed, winter grown wheat cut to a minimum length of 750mm (30 inches). It shall be as little bruised and broken as possible, with a certain amount of flag (dried leaf) mixed in with the stems, and retaining the

ears. It should not be discoloured and should be strong and supple and able to resist or even defy efforts to break it by twisting a handful continuously.

- Straw shall be uncombed material, dampened and shaken into a bed with the butts and ears thoroughly mixed and yealmed on site, unless agreed with the Council. The yealms shall be laid to a depth of not less that 250mm (10 inches) with both the butt ends and the ears visible.

- The material shall be tightly packed and of an even density and securely fastened with hazel or willow spars of adequate length to secure the new coat to the old.

- The use of dry bundles of combed straw (combed wheat reed, virtually undamaged thatching straw, flail threshed combed long thatching straw, Devon Reed) dressed into place with a leggett driven against the butt ends is not acceptable.

- Unless otherwise agreed the ridge shall be a flush ridge set in pitch with the main roof and detailed to the satisfaction of the Council.

- Gables shall be cut so that there is an adequate overhang to protect the gable and all verges, eaves and the ridge shall be securely fastened with liggers and spars in a traditional style.

- The thatch shall be securely finished at the chimney abutments and sealed with a lime mortar fillet.

- The roof shall be covered with 20 / 22 gauge 19mm (maximum) galvanised wire netting. Netting shall conform closely to the roof contours and be fixed in such a way that it can be easily removed in the event of fire.

Notes

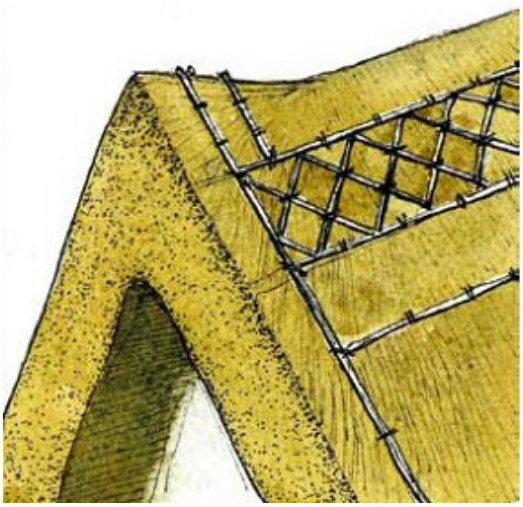
- Any change of thatch material or method of application of thatching materials on a Listed Building requires Listed Building Consent which must be obtained from the Council well in advance of work commencing. Consent is required to change from longstraw to water reed or longstraw to combed wheat reed or wheat straw prepared and laid in a different manner to traditional longstraw. No consent is required to rethatch roofs in a like manner providing that the materials and method of application exactly match the existing roofs in all details.

- Since it has now been established that a contractor can be held responsible for unauthorized alterations to a Listed Building (even if acting under direct instruction), it is advisable to ensure that Listed Building Consent has been obtained for any changes in thatching style or materials before work commence.

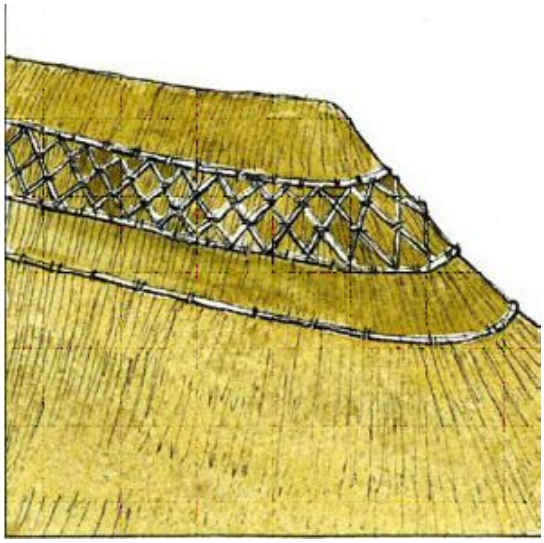
- Any roof timbers, which are decayed, should be repaired on a like for like basis. Any additional timbers required for the structural integrity of the roof should be of similar size, type and section and should be laid alongside existing timbers. The Council must be consulted, as Listed Building Consent may be required.

- Normally decorative, blockcut ridges and ornamental features will not be eligible for grant aid and will require Listed Building Consent unless they already exist.

Long straw flush ridge on gabled roof



Long straw flush ridge on a hipped roof



Water reed outline specification

13.48 The following is a general specification for Water Reed thatching:

- Prior to rethatching a full survey of the roof should be carried out to enable the preparation of an informed specification and schedule of works relevant to the particular building.

- All old wire and thatch shall be removed. The roof shall be thatched in good quality water reed (Phragmites australis).

- The minimum depth over the batten or substrate from the surface of the thatch will not be less than 300 mm (12inches) and the depth of the material over the fixings shall be a minimum of 125 mm (5 inches). The reed shall be secured by adequate fixings (normally steel hooks, 8mm steel rod and twine) to ensure that there is no slippage and each course should be fixed to each rafter.

- The water reed shall have a compact finish and even density and the surface of the reed must conform to the pitch of the rafter, which will normally be no less than 45 degrees.

- Eaves and barges will be applied in the angular “Suffolk style” and not “rounded off”.

- Unless otherwise agreed the ridge shall be a straight, undecorated, block-cut ridge of longstraw or marsh sedge, detailed to the satisfaction of the Council and of a minimum thickness of 75 mm (3 inches).

- The thatch shall be securely finished at the chimney abutments and sealed with a lime mortar fillet.
- The ridge, or where appropriate the whole roof shall be covered with 20 / 22 gauge 19mm (maximum) galvanised wire netting. If wire netting is fixed to the whole roof, it shall conform closely to the roof shape and be fixed in such a way that it can be easily removed in the event of fire.

Notes

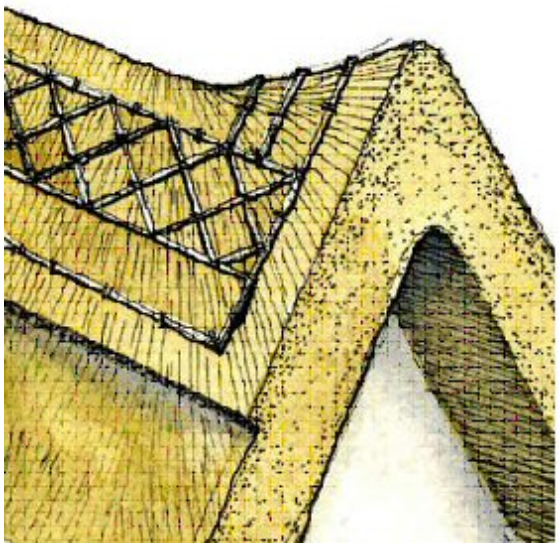
- Any change of thatch material or method of application of thatching material on a Listed Building requires Listed Building Consent, which has to be obtained from the Council. Consent is required to change from water reed to longstraw or visa versa. No consent is required to rethatch in a like manner providing that the materials and method of application exactly match the existing.

- Since it has now been established that a contractor can be held responsible for unauthorized alterations to a Listed Building (even if acting under direct instruction), it is advisable to ensure that Listed Building Consent has been obtained for any changes in thatching style or materials before work commences.

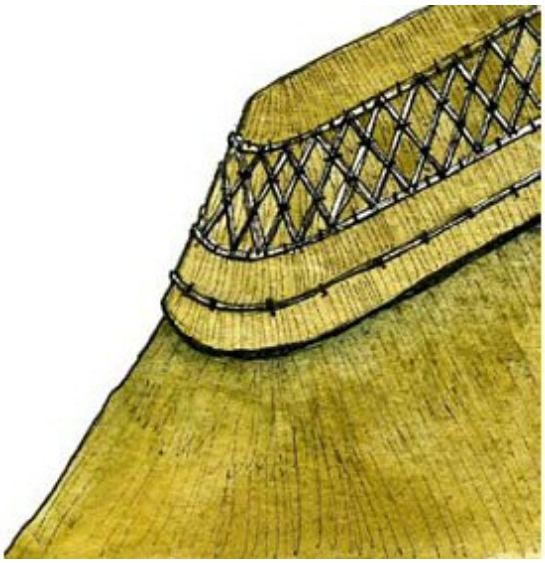
- Any roof timbers, which are decayed, should be repaired on a like for like basis. Any additional timbers required for the structural integrity of the roof should be of similar size, type and section and should be laid alongside existing timbers. The Council must be consulted, as Listed Building Consent may be required.

- Normally ornamental, blockcut ridges and other features will not be eligible for grant aid and will require Listed Building Consent unless they already exist.

Water reed with straight blockcut ridge



Water reed straight blockcut ridge on a hipped roof



"THE DORSET MODEL": A GUIDE TO FIRE SAFETY IN THATCHED DWELLINGS

13.49 The Dorset Model was developed on the basis that evidence has shown that thatch can be sacrificed in the event of fire, and requires the following provisions to be included within the design:

- Rafters are to be overdrawn with a material providing 30 minutes fire resistance, which should also be water resisting. 50 x 25mm counter battens are recommended on a micro porous boarding to allow the thatch to breathe;
- Any chimney, including the pot, should terminate at least 1.8m above the height of the ridge. Due to the risk of condensation forming as hot gases cool, the chimney pot should be limited to a height of 600mm;
- A domestic mains and battery powered, interlinked smoke alarm system is to be installed, with one smoke alarm fitted within the roof void;
- A terrace may not consist of more than three thatched dwellings together.
- In considering an application for such a relaxation the Building Control authority will have to consult with adjacent neighbours and the Fire Authority, and this may add to time taken to determine the application. In addition, the Dorset Model also includes the following recommendations:
- A loft hatch 600 x 900mm (minimum) is recommended for fire fighting purposes;

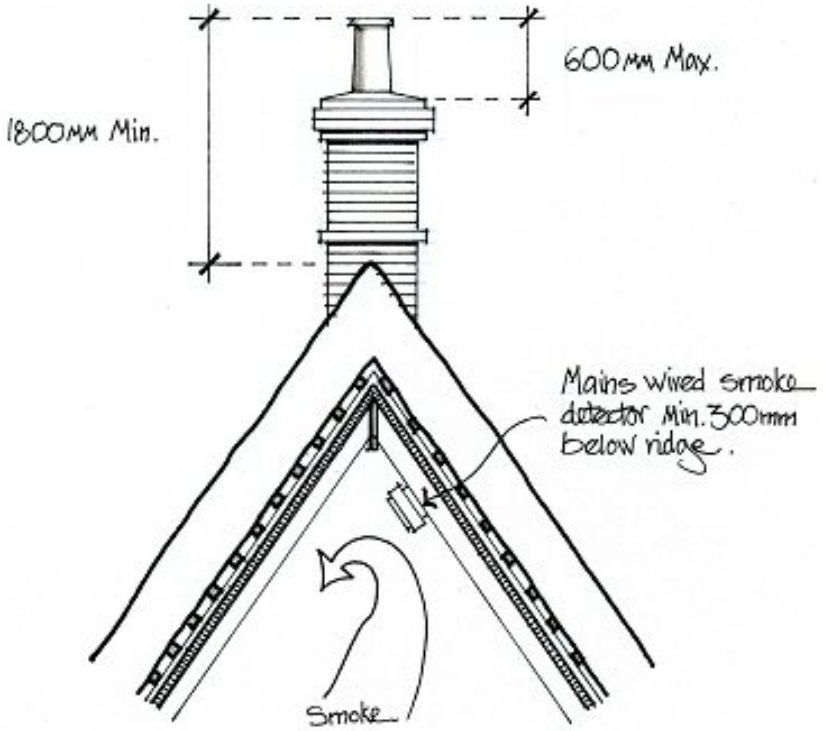
- Effects from rodent damage and straw debris need to be taken into account when considering the wiring installation;

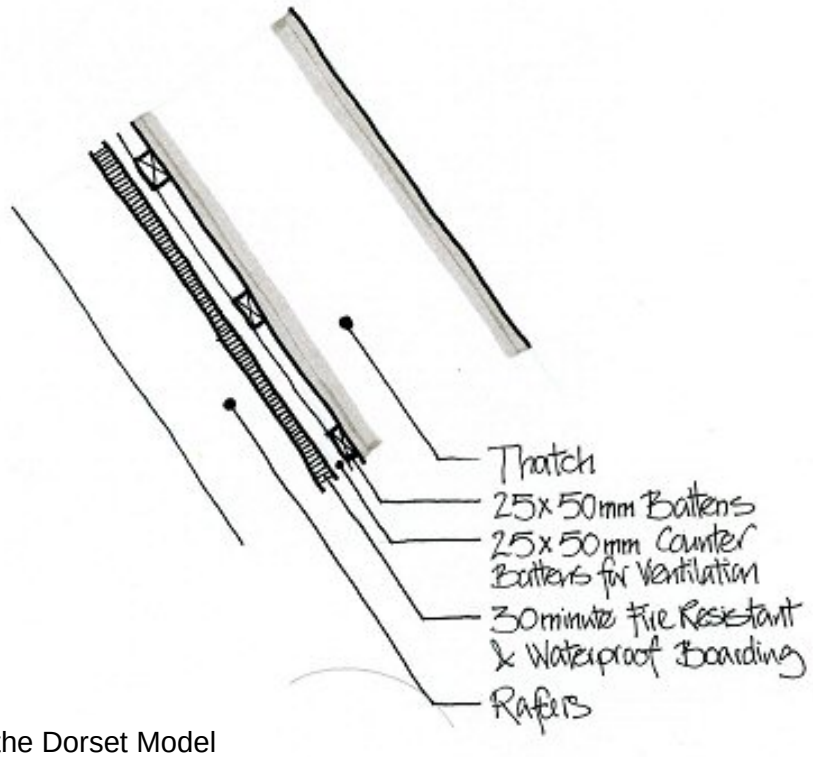
- It is NOT recommended to cut in recessed lighting into the ceiling below the thatch and any light fitting within the roof void should be in bulkhead type fittings. External lighting (especially floodlights) should not be located immediately below the thatch;

- Spark arrestors on flues are NOT recommended because they can clog and restrict the flow of flue gases;

- It is recommended that the proposal includes an external water tap, supplied from the rising main and fitted with a hose capable of reaching all parts of the roof;

- Any metal plumbing in the roof void should use compression joints so as to avoid the use of blowtorches.





Details of the Dorset Model

CHAPTER 14

SUSTAINABILITY, ENERGY EFFICIENCY AND LISTED BUILDINGS

(Refer to English Heritage's Guidance - Micro generation in the Historic Environment)

GENERAL SUSTAINABILITY

14.1 Approximately one in four homes in Great Britain were built 90 years or more ago, long before Carbon Emissions Reduction Targets, Building Regulations and Energy Performance Certificates. England has more than 370,000 Listed Buildings, often constructed to environmental standards that would not be approved today. A further one million unlisted buildings are situated within England's 9,734 Conservation Areas. The 2000 Building Regulations specify (in Regulation 9) that buildings of special architectural or historic interest and those in Conservation Areas are not required to comply with the energy efficiency requirements set out in Part L where this would unacceptably alter their character or appearance. (Source: House of Commons, Existing Housing and Climate Change, 17 March 2008).

14.2 Research suggests that old buildings can perform well in energy terms as the thick walls and small windows provide a high thermal mass compared with many modern construction methods. Old buildings have embodied energy including an existing investment in materials and have been proven to be robust. Natural ventilation supports the building's breathability and enables moisture management.

14.3 Sustainability is not just about reducing heating costs, and calculations can often be misleading. It is important to look at the building holistically in order to determine the best solution for the particular construction, age and material. The latest government regulations and requirements to make all buildings energy efficient are primarily focused on new buildings and the existing modern building stock - not traditional or Listed Buildings.

14.4 Planning Policy Statement 1 (Delivering Sustainable Development) and PPS22 (Renewable Energy) indicate that the local planning authority should ensure that any development plans contribute to the sustainability of the planet as well as seeking to cut carbon emissions. PPS22 also discusses the potential impact on the visual appearance of the wider landscape from renewable energies. South Cambridgeshire District Council supports and encourages proposals for the use of renewable energy, energy efficiency and energy conservation providing they meet current Local Development Framework policies and comply with National legislation.

14.5 A balance must be struck between managing change and the environment and the needs of a Listed Building. The fundamental difference between modern and traditional construction is that modern buildings use impervious materials such as cement and plastic cladding to keep moisture out, whilst traditional buildings were

built using thick permeable materials such as solid brick and stone masonry, timber and lime plasters, which can absorb excess moisture and release it slowly by evaporation.

14.6 The main risks to traditional and historic buildings are trapping moisture within the building materials, condensation within unheated areas of the building and ventilation and heating that are insufficient for removing moisture.

14.7 In principle, sustainable technology may be supported providing it meets the following criteria, but will always require Listed Building Consent:

- The change will not result in the loss of historic fabric or affect the building's special architectural interest
- The justification demonstrates that other energy saving measures have been addressed or other locations have been explored, such as freestanding equipment
- Visual impact is minimal
- The cabling, wiring, pipe work and all other associated equipment can be accommodated without loss or damage to historic fabric
- The units are removed upon such time as technology improves or they become redundant at which time the historic fabric is made good
- The work is considered reversible

ENERGY EFFICIENCY

14.8 The government's focus on improving the energy efficiency of buildings is targeted at *new construction*. As the percentage of Listed Buildings in England is approximately between 5 - 8%, the government expect the other 92 - 95% of buildings will be made energy efficient first. However, in practice, owners are interested in contributing to the decreased use of the planet's finite fossil fuels and reducing their energy bills, which should not be at the sake of a finite resource of Listed Buildings.

14.9 Each proposal will be reviewed on its merits. Locations, for solar panels, wind turbines and other plant that are freestanding in the garden, or located on a modern building within the curtilage of the Listed Building, may be viewed more favourably. Listed Building Consent may not be required in these instances. However, the works are likely to require Planning permission and the conservation officer will be consulted to assess any impact of the scheme on the setting of the Listed Building.

14.10 There are many ways to improve the energy efficiency of a Listed Building:

- Secondary glazing
- Insulated curtains
- Reinstating shutters, if historically appropriate to the building
- Improved loft insulation
- Fuel efficient boilers and thermostatically controlled radiators
- Energy efficient lighting
- Hot water tank jackets
- Insulation of pipe work

INSULATION

14.11 Insulation for traditional buildings should be carefully considered, as modern materials, such as fibreglass or mineral wool, tend to hold moisture. Natural materials such as sheep wool or hemp fibre are more appropriate as they have good thermal qualities and do not prevent the movement of moisture.

DRAUGHT PROOFING

14.12 Draught proofing is one of the best and least intrusive methods of improving comfort and reducing heat loss to any opening in a building.

14.13 Windows and doors are a major source of air gaps, noise and dust ingress. Provided sufficient ventilation remains for the health of the building, its occupants and any appliances such as boilers or other combustion appliances, the introduction of draught proofing can improve the situation.

14.14 All openings, including cat flaps, letter boxes and loft hatches should also be included.

14.15 There is a limit to how draught-proof a building should be, especially in rooms which produce large quantities of moisture- such as kitchens, bathrooms, and utility rooms. Additional extraction systems may be required to ensure the levels of moisture are properly managed.

14.16 Unheated spaces, such as roof and floor voids, are meant to retain cross-ventilation and should not be draught-proofed.

THERMAL PERFORMANCE OF HISTORIC WINDOWS

14.17 Original historic windows are disappearing despite being an important part of the character and history of any building. Those concerned about thermal performance are increasingly targeting windows, however, there are several tests that can be conducted to reveal air gaps and draughts in order to develop an informed decision and provide the most benefit to the building's energy efficiency.

14.18 Studies have revealed that a typical single glazed window on its own will fall short of performance against a double glazed window. However, small and simple improvements can increase the performance despite the window being single glazed. For example, providing secondary glazing significantly improves both the thermal performance and noise reduction of a single glazed window. The addition of heavy curtains, draught proofing and retaining, if they exist, shutters all will raise the U-value of the single glazing.

14.19 The improvements mentioned above should be discussed with the Council prior to considering altering any existing single glazed window. The majority of these improvements will not require Listed Building Consent.

RENEWABLE ENERGY

14.20 Energy efficiency is not the same thing as renewable energy. Renewable energy is the supply of energy to buildings in the form of heat or electricity from sources which are not depleting the earth's limited resources. For example, energy can come from the sun, wind, and water or from organic material.

14.21 There is an ongoing debate about the cost effectiveness of renewables. Much depends on the location of the building, and which form of energy is being used. It is not just the number of years of payback that should be considered, but also the carbon emissions. For instance, a biomass boiler is thought to have no carbon emissions whilst a ground source heat pump creates over 28,000 kg of carbon dioxide. It is therefore important to research which system is appropriate not only for the location, but based on the needs and functions of the Listed Building and its occupants.

- Solar powered systems are not always the most cost effective
- Biomass systems can provide an economic solution if space is available and if there is a sustainable fuel source
- Ground source heat pumps can be an alternative, but are not carbon efficient in all situations
- Wind turbines and micro hydro systems should only be considered where conditions are suitable and if they will not adversely impact on the appearance and setting of the Listed Building

14.22 Considerations associated with thermal upgrading:

- That the insulation of the structure is even and avoids thermal bridging - problems often arise at the junctions
- Providing a well-controlled heating system, with heat emitters in rooms where heat will not be gained from heated spaces elsewhere - this helps reduce moisture levels and avoids condensation. However, if only parts of the Listed Building are upgraded, other areas may suffer and condensation could be the result
- Preventing the distribution of moisture throughout the building, particularly in unheated spaces - some areas are not capable of being heated due to their location, the historic fabric, etc. However, it is important to control moisture levels.
- Trapped moisture within the construction can lead to problems
- Condensation within the construction or at thermal bridges or within unheated areas can lead to problems
- Insufficient ventilation and heating to remove moisture can lead to condensation and damp problems

14.23 Before undertaking any proposal for renewable energy on a Listed Building, sufficient research should be carried out to determine which source is the best for the particular building taking into account of its location, the potential impact on the historic fabric and character, as well as the potential for removal should the proposal not be viable. In addition to the impact on the Listed Building, there is a potential impact on wildlife such as bats and birds if proposals involve works to loft or attic spaces within roofs. Many systems allow for a freestanding unit to be erected within the grounds of the Listed Building. This may be more satisfactory than implementing works on the historic building. However, it is important to consider the impact of the proposal on the Listed Building and its setting. Careful consideration should be made before undertaking any proposal.

14.24 Visit the Energy Saving Trust's website for further advice and guidance at www.energysavingtrust.org.uk.

SOLAR PANELS

14.25 There are two main types of solar panels, both of which generate power:

Solar water heating – solar panels - These have the appearance of large raised rooflights and have two main components- the collector and the thermal store. The collector uses the sun's radiant energy to heat the water. There are alternative designs incorporating flat panels or tubes. These should only be used

on modern or unobtrusive roof pitches. Consider impact internally- including pipe work, cutting of any of the roof structure, affect on historic fabric, etc.

Solar electricity – photovoltaic (or PV) - These can have the appearance of roof tiles. They convert sunlight into electrical energy: the greater the intensity of light, the greater the flow of electricity. PV's only produce electricity when there is light, which means the energy must either be consumed as it is being generated or stored for later use or supplied to the National Grid. These PV tiles have a shinier appearance than natural tiles making them inappropriate in most locations.

Example of freestanding solar panels installed in the garden of a Listed Building

WIND TURBINES

14.26 Small wind turbines are now available for individual power generation. Advice from a structural engineer may be necessary, as wind loading and vibration from units can have a damaging effect on the building.

14.27 Electricity generated by a wind turbine is highly dependent on the speed and direction of the wind. The wind speed itself is dependent on a number of factors, such as location within the country, height of the turbine above ground level and nearby obstructions. To ensure that a scheme is viable, a professional assessment should be undertaken of the local wind speed for a full year at the exact location where the turbine is to be located before proceeding. Listed Building Consent will be required for any wind turbine attached to a Listed Building or Curtilage Listed Building, and is more likely to gain officer support if it is not located on the building itself.

BIOMASS

14.28 Biomass is produced from organic materials, either directly from plants or indirectly from industrial, commercial, domestic or agricultural products. It is often called 'bio energy' or 'bio fuels'. It doesn't include fossil fuels, which have taken millions of years to be created.

Bio-mass boiler set up in a converted Listed building

14.29 Biomass falls into two main categories:

- Woody biomass includes forest products, untreated wood products, energy crops and short rotation coppice (SRC), which are quick-growing trees like willow.

- Non-woody biomass includes animal waste, industrial and biodegradable municipal products from food processing and high-energy crops. Examples of the latter are rape, sugar cane, and maize.

14.30 For small-scale domestic applications using biomass the fuel usually takes the form of processed wood pellets, wood chips or wood logs.

14.31 The following are considerations that should be taken into account prior to proceeding with the installation of any Biomass system:

- **Fuel:** it is important to have storage space for the fuel, appropriate access to the boiler for loading and a local fuel supplier.

- **Flue:** The vent material must be specifically designed for wood fuel appliances and there must be sufficient air movement for proper operation of the stove. Chimneys can be fitted with a lined flue, but Listed Building Consent may be required.

- **Regulations:** Installation must comply with all safety and Building Regulations.

- **Smokeless zones:** Wood can only be burnt in exempted appliances, under the Clean Air Act

UNDERGROUND HEAT PUMPS

14.32 Ground Source Heat Pump (GSHP) systems are heating systems that exchange heat from an underground source in either a heating or a cooling system. Ground

source heat pumps require excavation and a substantial amount of land. There is the potential for any installation to undermine the historic foundations of the Listed Building and advice should be sought in advance of any proposal. In addition, there may be archaeological implications.

14.33 An accredited installer will be able to provide detailed advice, but these systems can be classified generally as open or closed systems:

• **Open systems:** Groundwater is used as a heat carrier, and is brought directly to the heat pump

• **Closed systems:** Heat exchangers are located in the underground (either in a horizontal, vertical or oblique fashion), and a heat carrier medium is circulated within the heat exchangers, transporting heat from the ground to the heat pump (or vice versa)

14.34 The following are considerations that should be taken into account prior to proceeding with the installation of any Ground Source heating system:

- You will need space outside your house for the ground loop.
- The ground will need to be suitable for digging a trench or borehole.
- For electricity, oil, LPG or coal the payback may be more favourable. Heat pumps are a good option where gas is unavailable.
- The type of heat distribution system. Ground source heat pumps can be combined with radiators but these will normally be larger than with standard boiler systems. Under floor heating is preferable as it works at a lower temperature.
- Wall, floor and loft insulation will lower your heat demand and make the system more effective.

AIR AND WATER SOURCE HEAT PUMPS

14.35 Air and water source heat pumps use air or water respectively. They do not rely on a collection system and simply extract the heat from the source at the point of use. Air source heat pumps can be fitted outside a house or in the roof space and generally perform better at slightly warmer air temperatures. Water source heat pumps can be used to provide heating in homes near to rivers, streams and lakes.

14.36 The benefits of air source heat pumps are similar to ground-source heat systems. Firstly, neither type of system requires the use or storage of oil / solid fuel. The systems instead run on electricity. Air source heat pumps present an advantage over ground source heat pumps because they require less space for installation and are therefore more suited for an urban home.

14.37 They require ducting to each room and therefore are unsuitable for historic buildings that have exposed historic structure and where the ducts cannot be concealed. Consideration should be taken in regards to impact to any historic fabric. Planning permission may be required as well.

CHAPTER 15

SPECIFIC BUILDING TYPES WITHIN SOUTH CAMBRIDGESHIRE

AGRICULTURAL BUILDINGS – GENERAL
(Barns should generally be seen as part of a group of buildings associated with the farmhouse.)

15.1 Within South Cambridgeshire, traditional farm buildings are fundamental to the character of the countryside and the sense of place and local distinctiveness. The restructuring of farming, and other economic and demographic changes in the countryside, provide both threats and opportunities in terms of retaining the historic interest of this building stock and its contribution to the wider landscape.

15.2 Traditional farm buildings have been under great pressure for change. This pressure originated in the mechanisation of farm processes in the 19th century, and was accelerated by post-war intensification and restructuring, and has been further exacerbated by changes in traditional patterns of farm management. The results are the redundancy and disrepair of some historic structures and in large numbers of conversions to new uses that are often insensitive to the architectural and historic interest of farm buildings and their landscape setting.

15.3 Traditional farm buildings generally make a positive contribution to the character of the district. Some of these buildings are Listed in their own right, whilst others are considered Curtilage Listed. PPG15 states that Curtilage Listed Buildings are dealt with the same as Listed Buildings. Therefore, the criteria for works affecting the setting of the farm building or the associated Listed Building should be carefully considered.

15.4 Farm buildings are dominant landscape features and provide a wide range of benefits to the community by being:

- A focus of local memory and heritage telling us how our ancestors farmed and lived, thought and built;
- An historical investment in materials and energy that can be sustained through conservation and careful re-use;
- An essential contributor to local character and distinctiveness in the countryside and to our sense of place;
- Critical to our understanding of settlement patterns and countryside development;
- Important economic assets for farm businesses or, through adaptive re-use, a high quality environment for new rural businesses;

- Irreplaceable repositories of local crafts, skills and techniques, in harmony with the surroundings and using traditional materials;

- Important wildlife habitats, including bats and barn owls

15.5 Conversion of farm buildings to alternative non-farm uses will usually have an impact on their contribution to the agricultural character of the farm holding and the wider landscape. Consequently, the best option for retaining the overall historic and landscape integrity of traditional farming landscapes is wherever possible, to keep buildings in active agricultural use or related low-key usage. Alterations required in these situations may be less detrimental to the historic character of the farmstead than to convert the same building to a non-agricultural use or the addition of new buildings to accommodate displaced farm functions.

15.6 When considering converting an agricultural building into a different use, it is important not to 'over domesticate' the building. Original features, doors, shutters, internal partitions, etc. are significant and the presumption is that they will be retained in situ.

15.7 English Heritage provides advice and guidance on retaining the special interest of traditional farm buildings, and their use, on its website. It recommends that Local Authorities should:

- Adopt a positive attitude to agreeing sensitive changes, which facilitate the continuing active agricultural use of the farm buildings

- Broaden the focus from registered agricultural holdings to include small-scale "family" and "lifestyle" farms, as they can deliver important benefits in terms of maintenance of traditional farm building stock and countryside character

- Encourage the re-use of buildings for farm business related purposes where continued active or low-key agricultural use is no longer practicable. For example, sensitive conversion to farm offices, workshops and farm shops will generally help to retain the overall agricultural character of the farm building and farmstead

- Encourage regular maintenance of buildings as the costs of major repairs far exceed the costs of ongoing management

- Consideration should be given for conversion to a new use, only when satisfied that a traditional farm building no longer has a viable mainstream or low-key agricultural use

BARNS

15.8 These are often the oldest and largest timber framed and weather boarded buildings to be found on farms. The harvested corn crop needed to be processed

and kept dry in well-ventilated conditions. In England the grain was beaten from the crop with flails and then separated from the husks by winnowing, both operations taking place on a threshing floor between opposed doors. The form and plan of threshing barns remained comparatively unaltered between the 12th and early 19th centuries: they typically had blank exteriors with provision for ventilation to the storage bays and doors opening into the threshing floor. In South Cambridgeshire barns were generally five bays, although larger barns are not unknown. Barns constructed prior to the 18th century were generally aisled on both sides but without porches or midstreys seen in other parts of East Anglia. Pseudo aisles were sometimes incorporated within the rear elevation of 18th and 19th century barns.

15.9 Barn interiors are generally open and plain, but may reveal evidence of reused timbers, former partitions, doors and windows. Threshing floors, often of wood, brick or earth, are now very uncommon.

Thatched tithe barn, Landbeach

GRANARIES

15.10 Detached granaries are generally of 18th and 19th century date, any earlier examples being of great rarity. Grain needed to be kept in dry, secure and well-ventilated conditions. Granaries were often built over stables and cart-sheds, and combined cart-shed / granary ranges are from the 18th and even the late 17th centuries in parts of East Anglia. Complete granary interiors, with plastered walls and wooden partitioning to grain bins, are rare.

Granary in Wraggs Farm, Arrington

STABLES

15.11 After the barn, the stable is often the oldest building on the farmstead. The value of horses as draught animals meant that stables were well built and often placed near the house. Stables needed to be well ventilated and provided with plenty of light for grooming and harnessing. Freestanding stables began to be built from the 16th century and were often two-storey with a hayloft above constructed of timber, but also found in brick. Floors were cobbled, and later brick, with drainage channels laid across the floors. High-status examples could have plastered ceilings to prevent dust falling into the horse's eyes. Complete interiors – with stalls, mangers and feed racks –of the 19th century or earlier are rare and there is a presumption that they will be retained.

DOVECOTES

15.12 Pigeons have been bred as a source of meat during the winter since Roman times. The Normans possibly introduced the practice of keeping doves in dovecotes and certainly in medieval times it was the custom of the Lord of the Manor to have a dovecote for his own needs. In the 17th century they became more widespread and the 18th and early 19th century saw a great increase in their number. As farming developed in the 19th century the importance of keeping pigeons decreased and many dovecots were converted into labourer's cottages (Kingston, Guilden Morden, and Harlton). Others were converted to granaries or used as stables or stores. More recently some have been converted to studios or garages.

15.13 Most dovecotes were sited within the farmyard and close to a source of water and were built independently from other buildings, but there are examples of some forming an integral part of a range of outbuildings (Coton) or being housed above a double barn range (Westwick). Several dovecotes occupy the first floor above a granary (Fen Ditton) and many more were constructed in the apex of gable roofs in a variety of other buildings.

15.14 The earliest known plan form was round and of this type there are two 18th century examples (Newton, Homefarm and Haslingfield). By far the most common plan type is square with a central boarded doorway in one side (Swavesey and Bassingbourn). Larger rectangular planned dovecotes are also found (Newton, Coach House Lane, and Grantchester). The majority of the dovecotes are timber framed but there are several brick examples, the most notable of which is Haslingfield, and one of clunch (Newton).

15.15 There are 51 dovecotes in South Cambridgeshire, the majority of which are Listed Grade II.

CART SHEDS

15.16 To enable direct access to the fields, cart-sheds often face away from the farmyard and may be found close to the stables and roadways. They are characterised by

being open fronted and sometimes open at each end. The cart sheds are generally timber framed and weather boarded, with a hipped or gabled thatched or clay pantiled roof.

STOCK SHEDS

15.17 These open-fronted structures facing into cattle yards mostly date from the late 18th or 19th century. The folding of stock in strawed-down yards and feeding them with root crops became more general in the 19th century, together with the subdivision of yards into smaller areas and the construction of loose boxes and other distinctive building types including bullpens, associated with more intensive fattening and management.

SMITHIES

15.18 The blacksmith's part in the daily needs of village life was vital. He was highly skilled in farriery and he made and repaired tools and equipment for local farms and households. The smithy or forge usually stood in the centre of the village, often on the village green or near a crossroads. Sometimes outside there would be an iron wheel plate embedded in the ground for use when a wooden wheel was to be shod with an iron tyre. A chestnut tree was often grown nearby for the shade it cast on hot sunny days. Many smithies were timber framed and weather boarded, but brick, flint and clay lump were also used particularly in the 19th century. Inside, the hearth and the fire form the forge proper, although now the word "forge" usually refers to the whole of the smith's working premises. The fire was on a raised brick hearth with a canopy and chimney over it. A water trough was kept at the front of the fire for cooling tools and quenching certain work. Bellows created the draught of air needed to bring the fire to sufficient temperature to heat the iron for working. Shoeing horses generally took place outside but some smithies were subdivided to provide a separate covered shoeing area with its own access. Several smithies survive relatively unaltered but none are in regular use, although the one on the green in Thriplow is used occasionally.

BAKE HOUSES / WASH HOUSES

15.19 In the 18th and early 19th century bread ovens were introduced and were generally small domed structures with an iron door located in the side of inglenooks. The Manor House or large farmhouse, providing food for a large number of indoor and outdoor staff, required a larger oven, which was usually of rectangular plan with a wagon-vault roof. These are normally found in separate bakehouses, or rear extensions of the main building, sometimes twinned with a wash boiler (copper) or brewing vat on opposite sides of the main chimney. In Papworth St Agnes a charitable squire provided a public bakehouse in the 19th century. Most bakehouses were constructed from brick or clay lump with a slate or tiled roof. The replacement of wood fuel with coal from the mid 19th century and the introduction of kitchen ranges designed solely for coal brought the use of bread ovens to an end. Bread made by the village baker and delivered to the door brought the standards of

the town to the countryside, and most countrywomen regarded this as an improvement. Many detached bakehouses / washhouses remain and most are little altered and used as stores. A bakehouse in Haslingfield was recently dismantled and rebuilt in the Meadow, together with a privy, and bread is baked several times a year.

Haslingfield Bakehouse (newly restored)

MILLS

15.20 South Cambridgeshire has a milling tradition and although no windmills or watermills are now commercially operated, some are still capable of functioning as a mill. They provide a reminder of the importance of wheat growing in the area. If a substantial amount of the original internal and external workings of the mill remain, all efforts will be made to retain them. Consent will not be given to any proposal which might compromise the future restoration of the mill. This would include works that could affect the power supply, diversion of water and any open land surrounding the mill.

15.21 The Society for the Protection of Ancient Buildings (SPAB) has a separate section for the care, maintenance and advice on Mills. For further information go to: www.spab.org.uk.

Bourn Mill, Bourn

Impington Smock Mill, Impington

TANNERIES

15.22 Tanning, the conversion of animal hides and skins into leather took place in tanyards, open-sided buildings with large pits in which the hides were soaked in liquid containing tannin. When the soaking was completed, the skins, now leather, were hand scrubbed and finally rolled with a hand roller. The process required a regular supply of water and tanneries were generally sited near rivers or streams.

15.23 One of the few surviving examples in the country is at Sawston, where a tanyard was first recorded on the site in 1649. The buildings date from the mid 19th century and include a timber framed and louvered skin drying shed, a water tower, engine and boiler house in addition to numerous smaller buildings. The rarity of the drying shed is recognised in its Grade II* Listing and the majority of the remaining buildings are Listed Grade II. The site is still in use today for the production of chamois leather.

MALTINGS

15.24 East Anglia has a long tradition of growing barley and it has been grown and malted for brewing since the Middle Ages. The invention of Porter in the 18th century, which required brown malt, saw an increase in the number of maltings in the area. These were generally small-scale buildings associated with existing farmhouses although larger maltings were built in the centre of some villages.

15.25 The malting process involved steeping the barley in a cistern of water for several days; allowing it to germinate and then roasting it to the desired type, amber, brown, chocolate or black. Maltings are therefore generally long, low buildings with the protruding dome of the kiln three quarters of the way along the length. The overall length of the building varies depending on the age and location of the building. Early maltings such as the 17th century maltings in Fulbourn, which is the best-preserved example, were timber framed and rendered with a brick walled malting floor and one and a half storeys high. The dome of the kiln, circular or square, was usually of a lightweight timber construction plastered internally, tiled or slated externally and surmounted by a cowl. Later maltings were usually all brick and often two storeys (Linton).

15.26 Fragmentary remains of several maltings survive including ones at Haslingfield, Great Chishill and Linton and although they have been incorporated or converted into dwellings, some still include features of their former use.

SCHOOLS

15.27 There are both primary schools and village colleges within the District which are Listed:

- Barrington Primary School, 1839

- Madingley Primary School, 1844
- Fowlmere Primary School, 1861
- Sawston Village College, 1930
- Linton Village College, 1937
- Impington Village College, 1938/9

15.28 Each type of building has differing requirements and solutions. The Council liaises with the County Council and school Governors to ensure that the best interests of the building are considered when proposals for change are discussed.

WAR MEMORIALS

15.29 Most villages have a war memorial, some of which are protected by Listing, whilst others are sited within Conservation Areas. There are specific guidelines on how to maintain and repair any war memorial including what methods and materials are appropriate to use, depending on the memorial's condition and construction material. Not all memorials are external stone structures; some are plaques within buildings, which should be protected when changes are proposed.

15.30 English Heritage guidance, *Advice on Maintenance of War Memorials*, provides further information about maintenance and grants.

15.31 Best practice should include the following elements for any war memorial:

- Make a recording of the memorial, including inscriptions as a village archive
- Monitor the condition, legibility of inscriptions, accessibility and security of monument
- Maintenance
- Repair

Hinxton War Memorial

CHAPTER 16

OTHER HERITAGE ASSESTS

HISTORIC PARKS AND GARDENS

16.1 Most people are aware that buildings which are important in terms of their history and architecture are Listed and that many Ancient Monuments are similarly recorded and protected. It is less widely known that since the 1980s, there has been a national record of historic parks and gardens which make such a rich and varied contribution to our landscape. This record, known as the *Register of Parks and Gardens of special historic interest in England* and now containing nearly 1450 sites nationwide, was established, and is maintained by, English Heritage.

16.2 Several gardens with South Cambridgeshire are described in the Register and every effort will be made to ensure that these important sites are not damaged. They are a material consideration in determining planning applications.

SCHEDULED ANCIENT MONUMENTS

16.3 Scheduled Ancient Monuments are currently managed (by English Heritage) under a separate system to Listed Buildings. However, the **draft Heritage Protection Bill** includes provisions for the responsibility to be moved from English Heritage to Local Authorities. As a result, in the future South Cambridgeshire District Council may be responsible for managing the systems and monitoring the district's monuments. The *Ancient Monuments and Archaeological Areas Act 1979* provides more information. The County Council's Historic Environment Team will also be able to offer guidance as they currently maintain the sites and monuments record.

16.4 Scheduled monuments are not always ancient, or visible above ground. There are over 200 'classes' of monuments on the schedule, and they range from prehistoric standing stones and burial mounds, through the many types of medieval site - castles, monasteries, abandoned farmsteads and villages - to the more recent results of human activity, such as collieries and wartime pillboxes. Scheduling is applied only to sites of national importance, and even then only if it is the best means of protection. Only deliberately created structures, features and remains can be scheduled.

16.5 Examples of some of the ancient monuments in South Cambridgeshire are:

- Car Dyke, Waterbeach
- Camps Castle remains, Castle Camps
- Bartlow Hills, Bartlow
- Fleam Dyke, Fulbourn

- Round Moat, Fowlmere
- Wandlebury Camp, Stapleford
- Wimpole Park, Wimpole

ARCHAEOLOGY

16.6 PPG16 sets out how archaeology should be protected and change managed through the Planning System. Scheduling does not cover most archaeology but much will be significant in heritage and planning terms, and could be of local, regional or national importance. The County Council's Heritage and Environment Team will provide advice.

CHAPTER 17

ECCLESIASTICAL BUILDINGS

POLICY BACKGROUND

17.1 PPG15 establishes a general presumption in favour of the preservation of Listed Buildings and emphasises the need to protect churches from unnecessary demolition or unsuitable and insensitive alteration. At the same time, it recognises that historic buildings should be kept in active use and that this may involve change. When change is proposed, the special architectural and historic interest of the building should be protected. The PPG acknowledges that well-considered change within the context of long-established ownership is often conducive to the long-term preservation of an historic building.

17.2 PPG16 establishes a presumption against the disturbance of important archaeological remains and recommends that when works take place which bring about such disturbance, then those responsible for the works must arrange for mitigation and recording required by the Council. A programme of archaeological investigation and evaluation may be required before the application is determined. This means that the impact of the proposal can be fully assessed.

17.3 The Care of Churches and Ecclesiastical Jurisdiction Measure 1991 aims to ensure that Church of England churches are properly cared for and works carried out in the best possible way. However, the policy behind the Measure also stresses that churches – while being of great significance to the historic environment – exist primarily for worship. The Measure therefore provides that those carrying out functions of care and conservation shall have regard to the role of the church as a local centre of worship and mission.

LEGAL REQUIREMENTS

17.4 Any works for the demolition of a Listed church or for its alteration or extension in any manner which would affect its character as a building of special architectural or historic interest, will require Listed Building Consent or its equivalent. The Ecclesiastical Exemption (Listed Buildings and Conservation Areas) Order 1994 provides for an exemption from Listed Building Consent for those denominations that have created an approved system of control. Currently this applies to the Church of England, the Church in Wales, the Roman Catholic Church, the Methodist Church, and the United Reformed Church and those Baptist churches where the Baptist Union acts in the capacity of a Trustee. The exemption does not apply to planning and Building Controls. Under the arrangements, the congregation must advertise their proposals and consult the Local Planning Authority, the relevant national amenity societies and English Heritage about works that would otherwise require Listed Building Consent.

17.5 All other religious denominations will require Listed Building Consent before they undertake works to a Listed church.

17.6 The process is enshrined in the Care of Churches and Ecclesiastical Jurisdiction Measure 1991 and subsequent Rules. It consists of two key formal stages around which a number of consultation rounds, both formal and informal, will take place. The first stage consists of seeking advice from the Diocesan Advisory Committee (DAC) and the second involves obtaining a Faculty from the Chancellor of the diocesan court ('consistory court'). (For some categories of work, the Archdeacon is empowered to grant a Faculty, although this does not extend to works which would affect the character of the building. If compared to the secular planning system, the DAC's function is roughly comparable to that of a planning officer, while the Chancellor's role can be equated with that of a planning committee.

17.7 Under the Church of England's Faculty Jurisdiction Rules any repairs, alterations or extensions to a church building or changes to its contents or churchyard require a faculty, which is a licence authorising the work. The only exception to this rule is minor works specified by each individual diocese. The requirement to obtain a faculty before undertaking any kind of works is a legal obligation and there are significant powers to deal with breaches.

17.8 Listed Building Consent, even for exempt denominations, is required for the demolition of a church, except in the case of Church of England churches demolished under the provisions of a pastoral redundancy scheme under the Pastoral Measure 1983. In such cases, the Church Commissioners will request a non-statutory enquiry if there are reasoned objections from the local planning authority, English Heritage or the national amenity societies.

REDUNDANT CHURCHES

17.9 Redundant churches that are considered to be of sufficient interest may be vested in the Churches Conservation Trust, or in cases where the recommendation was not that the building should go to the Trust, to make further efforts to find an alternative use and to engage in further consultation with the Secretary of State before using the Pastoral Measure powers to demolish the building. Redundant Churches by definition are not exempt as they are not for the time being used for ecclesiastical purposes. They are therefore subject to full Listed Building Control.

17.10 Planning permission and, if necessary, Building Regulations, is needed for any alteration or extension that materially affects the external appearance of an existing church. If the development affects a Grade I or Grade II* Listed church, the local planning authority will consult English Heritage before determining the Listed Building and / or planning applications.

17.11 Churchyard features such as memorials, lych-gates, and boundary walls may be Listed Buildings in their own right (subject to Listed Building Control) or,

exceptionally, scheduled ancient monuments and subject to separate statutory consent requirements.

INTERIORS

17.12 Locating new facilities (such as toilets, meeting rooms, etc) within an existing church building offers several advantages. It is more convenient and avoids the difficulties that often accompany proposals to extend historic places of worship. Internal alterations need to take account of the spatial qualities of the interior and the main architectural axis as well as the significance of individual fittings. There will be cases where the quality of the interior is such that there is very little scope for internal adaptation. In general, the more rare or complete an interior the stronger will be the presumption in favour of its preservation unaltered.

17.13 Historic churches and chapels have fixed seating. Medieval and immediately post-medieval fixed seating is so rare that it should always be retained. However, most churches have seating that dates from the 19th century. If this is of very high quality and is contemporary with the church or forms part of a significant historic scheme of re-ordering, the degree of flexibility may be limited. Elsewhere, rearrangement is sometimes possible, especially in less-used areas of the church. Major re-seating schemes should not run counter to the main architectural axis of the building and careful thought should be given to any new floor finishes and the design and colour of new seating.

17.14 Where there is a need for additional "social" spaces, whether primarily for the congregation or for broader community use, it is sensible to consider existing and other nearby facilities that might be an alternative for these purposes. When a small meeting room, crèche or lavatory is required, a space that can easily be divided from the rest of the building might already exist, such as the base of a tower or the area under a gallery. In churches without galleries or discreet spaces, it may be possible to form a room at the liturgical west end, perhaps under a new gallery or at the end of an aisle. Single storey spaces are generally easier to integrate, and to reconcile with access requirements, than structures with multiple levels. Where discreet spaces do not exist, it is often possible for utilitarian features such as small kitchens to be "designed" as items of freestanding furniture rather than built in units and thus made visually more acceptable.

17.15 Internal partitioning should respect the main internal spaces and avoid physical damage. Partitions should be set back behind arcades or gallery columns or, where the detailing is simple, be set on the centre line. The design of partitions requires care. Generally, their finish should reflect those of the principal internal wall surfaces or existing screens, be they plastered or panelled. A glazed solution is sometimes possible, although large areas of glazing can be prominent and out of character with historic church interiors. Individual freestanding 'pods' or units may be an alternative to attaching partitions to the historic fabric, but should be carefully considered and designed.

SERVICES - HEATING AND LIGHTING

17.16 New services are often ephemeral in the life of the building and every effort should be made to avoid damage in their installation and to allow for easy later removal. With the possible exception of light fittings, modern service installations are usually utilitarian in appearance; they should be designed and located to be as unobtrusive as possible.

17.17 Current codes of practice and standards, including British Standards should be taken into account but it may be appropriate to modify certain non-statutory codes to take account of the particular needs of historic churches. Provided that such modifications are made with the benefit of specialist advice, they should not compromise health and safety.

17.18 Some historic services may themselves be of interest for their contribution to the design of the church or as rare examples of historic technologies. Examples might include light fittings, historic radiators or heating solutions, which in some 19th century and 20th century churches are an integral part of the design. Where possible such survivals should be preserved, preferably in use, and retained.

17.19 The installation of heating may involve various alterations to the building, ranging from excavation of floors or the penetration of walling to accommodate pipes to the displacement of pews to allow space for radiators. The impact of these alterations must be assessed when judging a proposal.

17.20 Further information on servicing and other common works can be found in *New Work in Historic Places of Worship*: English Heritage 2003.

EXTERIORS AND EXTENSIONS

Church showing various stages of extension, which form part of the history and evolution of the church

17.21 Where a wholly internal solution is not possible or desirable, it is often possible for existing ancillary structures, both within the boundary of the church or outside it, to be adapted to accommodate new uses. Where these are available, their use for such purposes is recommended. Provision of facilities in a new detached building, within or adjacent to the churchyard, may be considered if the building does not

significantly harm the setting, archaeology or associated features of special interest, including standing monuments.

17.22 Where facilities are not available, or where there is an accepted need for linked facilities under one roof, an extension to the building may be considered. Whether an extension is likely to be regarded as appropriate depends on a number of factors. These include the architectural character of the church and its relationship to its setting as well as the physical and visual impact of such additions, both on the standing structure and on below ground building features and burials. Most churches are in a conservation area, and the District Council has a legal duty to have special regard for the preservation or enhancement of the character and appearance of such areas.

17.23 The fundamental issue of controls over Listed Buildings is that works, which would affect their character, must be justified and necessary (PPG15 Paragraphs 15.3 – 4). This must apply to both the principle and the scale of an extension. The Faculty Jurisdiction Rules require the submission of a "statement of needs" with faculty applications. The issues of scale and compatibility are paramount: "Extensions should not dominate the existing building in either scale, materials or situation…Successful extensions require the application of an intimate knowledge of the building type that is being extended together with a sensitive handling of scale and detail" (PPG15, Paragraph C.7). There will be cases where an extension of any form or scale would be impossible without causing unacceptable harm to a church building, to the archaeology of the churchyard or to the conservation area.

17.24 Some large churches may be able to accommodate quite substantial additions successfully. Significant enlargement of smaller churches is more difficult, although in such cases it may be possible for new facilities to be provided in porch- or vestry-like structures. Many churches, particularly medieval ones, are accretive in nature and such buildings are often capable of further additions provided the necessary care is taken. It is not simple to extend buildings constructed by a single designer or those that display a degree of architectural completeness. In such cases, there may be a strong argument against any addition.

17.25 Sometimes there is an elevation with a considerable degree of later and perhaps inferior work, which is not prominent in the village scene, and which is not close to any sensitive archaeology. There are a number of churches with a façade which is not prominent, much repaired or much restored where a well-designed extension would be acceptable if no alternative exists. The Faculty Jurisdiction Rules require the submission of a "statement of significance" with the faculty applications. The purpose of that statement is to protect "significant fabric", a principle shared in the advice given by the District Council.

17.26 The most satisfactory additions to historic churches are those, which form a harmonious composition with the building to which they are attached and consequently appear to be a natural development from the building. Aisles,

transepts, chapels, vestries and porches all provide an established vocabulary for church extension. It is crucial that the details, such as roof forms, and materials used respect those of the existing church. Examples where a deliberate contrast has been struck can harm the setting and appearance of churches. These need to be particularly well designed to be successful based on the individual needs of the building.

17.27 New structures attached to churches by narrow, often glazed links are seldom aesthetically satisfactory. Linked additions do not compose well with the buildings to which they are attached, especially when attached to freestanding churches in churchyards. It is recognised that such linked extensions have often been provided in an attempt to avoid obscuring or damaging historic fabric. However, if the architectural design or archaeological significance of the fabric is so sensitive as to preclude an integrated addition, then an extension may not be the appropriate solution.

17.28 When the Council receives an application for Planning permission for an extension it will have regard to its established policies (for example in terms of access, parking, its physical impact on neighbours and its effect on the character and appearance of a conservation area) and the following:

1. Church extensions will not be approved where there would be interference with historically and architecturally significant fabric.

2. Extensions for lavatories and modest kitchens will be considered positively but will not be permitted where those facilities can be provided inside the building without significant harm to its architectural or historic interest.

3. Extensions for meeting rooms, offices or nurseries will not be permitted where there is an alternative site in the churchyard or nearby, where the interior of the church could be re-ordered to provide all or part of the facilities or where alternative facilities (such as a parish hall) exist nearby.

4. Where an extension is agreed in principle the Council will expect it to be designed in the form of an attached chapel, transept or aisle (rather than a separately roofed volume with a linking corridor or circulation area) unless there are overriding considerations to the contrary. In all cases compatible roof forms, building materials and details will be required and the advice on extensions in PPG15 must be complied with.

ACCESSIBILITY WITHIN CHURCHES

17.29 Under the terms of the Disability Discrimination Act 1995, churches are regarded as “service providers” and are required to take reasonable steps to remove, alter, or get around physical features that make it impossible or unreasonably difficult for disabled people to use a service. This legislation applies to all places of worship

but does not supersede or take precedence over existing legislation governing the conservation of historic buildings.

17.30 Making physical alterations to a building is only one of a number of options. The legislation does not override existing secular or ecclesiastical laws governing historic buildings, and the obligation is to take "reasonable" measures. There will be cases where "physical" barriers cannot be overcome without causing unacceptable damage to the historic asset. However, such cases are rare and a solution is usually possible, given sufficient care and thought.

17.31 Congregations should be encouraged to arrange for an access audit of the historic building and draw up an access plan. Each plan must be site specific, reflecting the constraints and opportunities inherent in the design function, and setting of the church in question as well as the needs of its users.

ROOFING - MATERIALS AND THEFT

17.32 Nationally there have been a large number of thefts of metal on church roofs, mainly lead, which has arisen from the high cost of metals. Despite the cyclical nature of metal pricing, the issue of theft is still relevant. Ecclesiastical Insurance, in conjunction with English Heritage and the SPAB, has produced guidance notes regarding the theft of metals. Not only is there a loss of the historic fabric, but also the cost of replacement can be high. The thefts involve all metals, including lead, copper, stainless steel, and aluminium.

17.33 Measures to protect the building by increasing security include:

- Making access to roof tops more difficult
- Storing ladders away
- Protecting exposed scaffolding
- Keeping gates locked
- Regular inspections of the building especially after inclement weather
- Encouraging local support to become more alert
- Security lighting – however, this option needs to be considered in relation to planning policies
- Use of anti-climb paint, only if necessary, to down pipes and guttering
- Use of 'Smartwater' which is a security product that links the thieves to the crime scenes, however, this option may need DAC Consent
- CCTV

17.34 If the metal roof has been stolen, it is recommended that it be replaced on a ‘‘like-for-like’’ basis. However, if the same material has been repeatedly stolen, it may be possible to look at alternative solutions. These can be temporary until the price of metal goes down and so that the appropriate material can be replaced at some point in the future.

17.35 Change in roofing material may require Planning permission particularly if the roof is visible. However, if the roof pitch is low and not visible then it may be possible to replace the covering with an alternative without the need for Planning permission. Each circumstance will be viewed on its own merits and will involve consultation with English Heritage and the Council.

17.36 Lead is a highly sustainable material and provides excellent protection from water ingress. Alternatives such as terne coated steel and Sarnafil have been suggested in light of repeated metal thefts. South Cambridgeshire District Council may support either of these materials, but each case will be judged on its own merits.

PART III: APPENDICES

Milestone, Arrington
Richard Donoyou

APPENDIX 1

GUIDANCE ON APPLYING FOR LISTED BUILDING CONSENT

BASIC REVIEW OF CONSENT REQUIREMENTS

18.1 If any works do require Listed Building Consent, a formal Listed Building application must be submitted. The processing of most applications will take between six to eight weeks once the application has been submitted and registered (providing all of the necessary information is included). This is a nationally mandated timescale and the Council is required to meet this deadline, unless an extension of time is agreed. Please refer to the Council's website or contact the Council for information about applying for consent and downloading the necessary documents.

18.2 The following is a **broad, however, not comprehensive**, list of basic alterations and repairs to assist in understanding whether or not Listed Building Consent would be required. Every building is different and each situation is dealt with on a 'case-by-case' basis.

18.3 If an item is not on the list, or there is any doubt **contact the Council** for further information.

Please note: any unauthorised works to a listed building is a criminal offence.

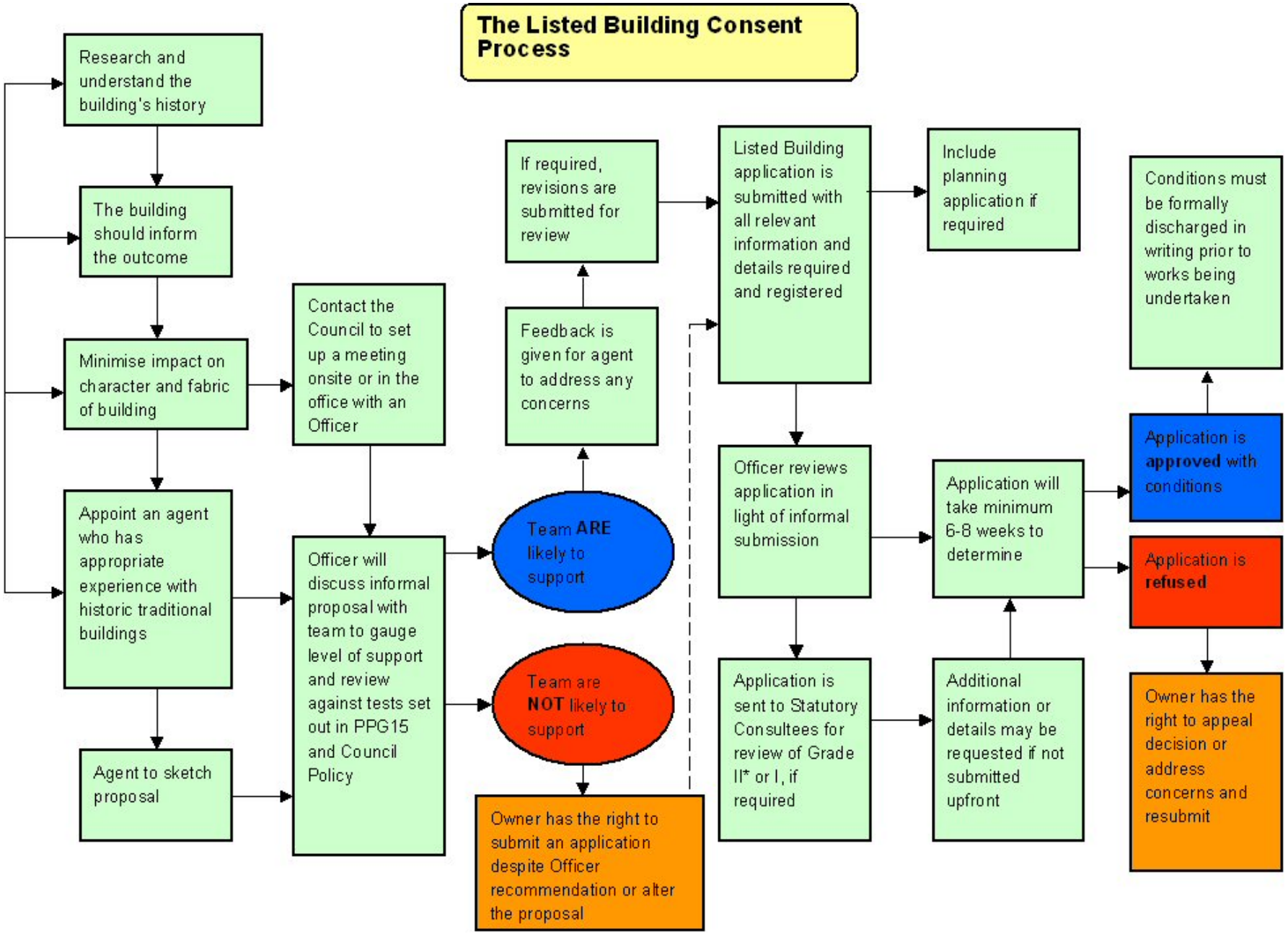
PROPOSED WORKS TO BE CARRIED OUT	REQUIRES LISTED BUILDING CONSENT?	SOUTH CAMBRIDGESHIRE DISTRICT COUNCIL COMMENTS
Internal decoration - such as painting or wallpapering	Maybe	It is important to be mindful of what materials are being used on a Listed Building. Breathable paints / non-acrylic and appropriate adhesives should be used. It depends on what materials exist, are they original and historic, modern, etc. Also, the Council would not support painting over any historic features, such as historic wallpaper, wall paintings, brick chimneys, timber beams with carvings or details, etc.
External decoration - such as painting or render, weatherboarding, etc.	Maybe	It depends upon what exists and the extent of the proposed works. If the building is rendered and the proposal is to re-render a **small** area of the building in matching materials, then consent is not required. The same goes for lime wash or paint (however, breathable paints should be used). The Council will determine if the works are considered to be minor or more significant in relation to requiring consent.

PROPOSED WORKS TO BE CARRIED OUT	REQUIRES LISTED BUILDING CONSENT?	SOUTH CAMBRIDGESHIRE DISTRICT COUNCIL COMMENTS
Replacing flooring	Maybe	If the original historic flooring exists, then there is a presumption that it should be retained and repaired. But, if the original historic flooring has already been removed, then it may not require consent. If the original historic flooring remains, then it will depend upon what is being proposed.
Replacing kitchen and bathroom units, fixtures and fittings	Typically no	Replacing kitchen units, worktops, toilets, showers and bathtubs do not require consent. However, changing the use of a room might.
Changing roofing material	Yes	Consent is required for altering a building's character or appearance. Changes may include loss of historic fabric, strengthening, etc.
Repairing roofing material	No	If **minor** repairs are carried out in matching materials and detailing (traditional detailing is encouraged), consent is not required.
Roof lights	Yes	Roof lights will always require consent. Care should be taken to locate roof lights between rafters. May include loss of historic fabric.
Changing windows and doors	Yes	Consent is required for altering a building's character or appearance.
Repairs to windows and doors	No	**Minor** repairs carried out in matching materials and detailing does not require consent.
Dormers	Yes	The introduction of new dormers requires consent.
Secondary glazing	Maybe	Most secondary glazing units do not require consent, providing they are attached in a way that minimises any damage to the historic fabric and is reversible. If the units require more substantial installation or are visually more obtrusive, consent would be required.
Stairs	Yes	Any alteration to a staircase, either historic or modern requires consent.
Floor plan layout-moving or exposing structural elements, etc.	Yes	Any alteration to the historic floor plan, which may affect the character of the building, requires consent.
Extensions	Yes	Any extension to a Listed Building requires consent and may also require Planning permission.
Sole plates	Yes	Consent is required to carry out anything other than **minor** repairs to sole plates.

PROPOSED WORKS TO BE CARRIED OUT	REQUIRES LISTED BUILDING CONSENT?	SOUTH CAMBRIDGESHIRE DISTRICT COUNCIL COMMENTS
Foundations	Yes	Works to the foundations, including replacing, installation of damp proofing, etc. will require consent.
Flue liners	Maybe	Consent might be required to install a flue liner, contact the Council to discuss.
Wood burning stoves	No	However, works may require a flue liner.
Creating an en-suite	Yes	Alterations require consent, including changing a room to an en-suite or creating one with new partitions. Consideration should be given to new soil and waste plumbing as well as ventilation.
Repairs to chimneys	Maybe	**Minor** repointing or repairs to chimneys do not require consent, providing matching materials and detailing are used. Structural works to a chimney, which may require taking down and rebuilding several courses of bricks, will require Listed Building Consent and may require Planning permission.
Chimney pots	Maybe	Depends on what exists, contact the Council to discuss.
Rainwater goods	Maybe	Repairs to or replacing existing rainwater goods on a 'like-for-like' basis do not require consent.
Internal lighting	Maybe	Consent is not generally required to install lighting; however, care should be taken so as not to damage any historic fabric. Historic timber beams or studs should not be cut into if avoidable. No lighting shall be installed in historic lath and plaster ceilings. If the proposal is to replace an existing light fixture for another, using the same socket, consent is not required.
External lighting	Yes- on commercial premises	Any lighting attached to the Listed Building will require consent. Style and design should be given careful consideration.

PROPOSED WORKS TO BE CARRIED OUT	REQUIRES LISTED BUILDING CONSENT?	SOUTH CAMBRIDGESHIRE DISTRICT COUNCIL COMMENTS
Services - electrical, wiring, heating, water, etc.	Maybe	The introduction of new services, or upgrading of existing, does not generally require consent. Careful consideration should be taken when installing in rooms that have carvings, mouldings, cornices, plaster ceilings, upholstered wall coverings, or any other original or historic decorative features. If additional ventilation, flues or other works are required, consent may be necessary. Services in Grade I or II* Listed Buildings may require consent.
Signage and advertisements	Yes	Anything physically attached to a Listed Building will require Listed Building Consent and signage consent. Freestanding advertisement may require Planning permission.
TV Aerials	No	No consent required to install an aerial on a Listed Building, but care should be taken to avoid fixing to brickwork, any holes required should be drilled into the mortar joints.
Satellite dishes	Yes	Consent required, but not likely to be supported on the Listed Building. Alternative locations such as freestanding in the garden or on a modern outbuilding should be reviewed first.
Solar panels	Yes	Consent is required, but not likely to be supported on the Listed Building. Alternative locations on the ground, on a short post, in the garden or on a modern outbuilding should be investigated. Planning permission may also be required.
Damp proofing	Yes	Justification and evidence as to need must be included in any consent request. Alternative methods of reducing damp should be explored first.
Conversion of outbuilding - Curtilage Listed	Yes	Alterations to buildings within the curtilage (land) of a Listed Building which were built **before 1948** will require Listed Building Consent and Planning permission and justification of need should be included.
Conversion of outbuilding - **not** Curtilage Listed	No	Alterations to buildings within the curtilage (land) of a Listed Building, which were built **after 1948** will require Planning permission, but will be consulted on in regards to impact on the Listed Building.

PROPOSED WORKS TO BE CARRIED OUT	REQUIRES LISTED BUILDING CONSENT?	SOUTH CAMBRIDGESHIRE DISTRICT COUNCIL COMMENTS
Garden shed	No	Any new freestanding shed will require Planning permission.
Fences, gates and railings	Maybe	If the fence or gate is physically attached to the Listed Building, then it will require consent and Planning permission. If it is not attached, then only Planning permission.
Walls	Maybe	If the wall is physically attached to the Listed Building, then it will require consent and Planning permission. If it is not attached, then only Planning permission.
Detached garage	Yes	It will not require Listed Building Consent, but will require Planning permission. The planning officer will consult the Historic Building Officer to assess the impact on the setting and character of the Listed Building.


The Listed Building Consent Process
Research and understand the building's history
The building should inform the outcome
Minimise impact on character and fabric of building
Appoint an agent who has appropriate experience with historic traditional buildings
Agent to sketch proposal
Contact the Council to set up a meeting onsite or in the office with an Officer
Officer will discuss informal proposal with team to gauge level of support and review against tests set out in PPG15 and Council Policy
Team ARE likely to support
Team are NOT likely to support
Owner has the right to submit an application despite Officer recommendation or alter the proposal
Feedback is given for agent to address any concerns
If required, revisions are submitted for review
Listed Building application is submitted with all relevant information and details required and registered
Include planning application if required
Officer reviews application in light of informal submission
Application is sent to Statutory Consultees for review of Grade II* or I, if required
Additional information or details may be requested if not submitted upfront
Application will take minimum 6-8 weeks to determine
Application is approved with conditions
Application is refused
Conditions must be formally discharged in writing prior to works being undertaken
Owner has the right to appeal decision or address concerns and resubmit

CHECKLIST FOR LISTED BUILDING APPLICATIONS

Application for Listed Building Consent for alterations, extension or demolition of a Listed Building

Every item under Section A, National Requirements, must be included in ANY application for Listed Building Consent. Items under Section B are local requirements depending on the nature of the proposed works. Contact the Council with any questions.

	NATIONAL REQUIREMENTS and 3 copies of all forms, plans drawings to be supplied unless the application is submitted electronically	**Document File Name(s)** (If supplying electronically)
A.		
	Completed Form	
	Site location plan (1:1250 or 1:2500) showing direction of north	
	Block plan of the site (1:100 or 1:200) showing any site boundaries	
	Existing and proposed elevations (1:50 or 1:100)	
	Existing and proposed floor plans (1:50 or 1:100)	
	Existing and proposed site sections and finished floor and site levels (1:50 or 1:100)	
	Plans to scale of not less than 1:20 to show all new doors, windows, shop-fronts, panelling, fireplaces, plaster moulding and other decorative details	
	Roof plans (1:50 or 1:100)	
	Ownership Certificates (A, B, C or D - as applicable)	
	Design and Access Statement	
	Notice under Regulation 6 of the Planning (Listed Building and Conservation Areas) Regulations 1990 must be given and/or published, where Ownership Certificates B, C or D have been completed.	

B. LOCAL REQUIREMENTS	Documents Supplied: YES	Documents Supplied: NO*	Document file name:
Biodiversity survey and report			
Heritage Statement (including historical, archaeological features and Scheduled Ancient Monuments)			
Photographs/photomontages			
Site Waste Management Plan			
Structural Survey			
Tree survey / Arboricultural implications			

APPENDIX 2

LIME

LIME (INTERNAL AND EXTERNAL)

19.1 Unlike modern buildings, which tend to rely on impervious materials or cavity walls to keep out moisture, those generally constructed before the mid 19th Century rely on allowing the moisture to evaporate from the surface. Lime based mortars and renders are vapour permeable; they allow the building to breathe and so manage moisture transfer naturally.

19.2 The walling materials of old buildings in Britain are usually stone, brick, timber or earth from the locality. They are all, to a greater or lesser extent, absorbent. Mortars are usually lime / sand for brickwork and lime / sand / aggregate for laying stone. Lime based mortars have a number of unique qualities. They resist the suction of the dry building materials of the construction for longer than other mortars, after being laid. This reduces shrinkage and maintains greater contact. The durable bonds formed provide permanent, weatherproof, frost-resistant joints. These are now acknowledged to resist rain penetration more effectively than with other types of mortar (such as cementitious render). Movement and temperature / moisture cycles tend to produce cracking in all kinds of mortar and render but not in lime mortar as it absorbs moisture and air allows small cracks to be closed as carbonisation occurs in the newly exposed lime. No other mortar has this ability.

19.3 As traditional lime based mortars were more permeable than the materials they bonded, moisture in the walls was evaporated out through the mortar. However, where cement rich pointing has been substituted, not only does the whole wall become less able to 'breathe' out moisture, but the mortar is often less permeable than the walling materials. Where mortars are impermeable, moisture can only escape through the stone or brick, which can lead to salt deposition and frost action causing spalling of the masonry. Whilst gradual erosion of a building's fabric is inevitable with the passage of time, the use of softer lime based mortars not only minimises moisture build-up but can also act as the sacrificial and most easily replaceable element of the structure.

19.4 Why use a mortar that is weak, flexible and vapour permeable? Because that was, and still should be, the method of construction in traditional buildings. A single, solid, thick wall standing on very shallow, often rudimentary foundations will move as it, and the ground it stands on, expand and contract in response to variations in humidity and temperature throughout the year. Thus, the mortar and render must not only allow movement but also allow the moisture, which inevitably will enter through the minute cracks generated, to exit the structure.

19.5 Strong cement mortars were preferred in post-war construction, as there was a requirement to build quickly, creating deep concrete foundations, damp courses and cavity walls.

19.6 When using lime there are a number of issues to consider:

- Colour, type and size of aggregate
- Type and amount of animal hair
- Weather conditions
- Type of lime- hydrated or non-hydrated

19.7 There are two main types of lime products: hydraulic and non-hydraulic (lime putty). Hydraulic lime is capable of setting in damp conditions and is often used in exposed locations or where a quick set is required. Hydraulic lime results in harder and less permeable material lime putty. The appropriate mixture is critical for a successful project and the weather can determine the application of any lime-based product. If the weather is too damp or too hot or cold, the lime product will not carbonate and there is an increased risk of failure. Non-hydraulic lime, or fat lime, does not require water for setting and dries quickly.

19.8 **Lime Putty** is produced by burning relatively pure limestone (calcium carbonate) at between 850 and 1,300 degrees C. The resulting calcium oxide is slaked in clean water to produce lime putty (calcium hydroxide). This form of lime cures (carbonates) by absorbing carbon dioxide and reverting to calcium carbonate. It is usually stored under water to prevent it curing prematurely.

19.9 **Dry Hydrate of Lime** is produced from the same material and in the same way as lime putty except that, instead of slaking under water, the calcium oxide is hydrated with a precisely controlled amount of water to produce a dry powder (calcium hydroxide). Unfortunately it begins to carbonate from the moment it is produced. Tests show that up to 16 per cent of the contents of an old sack of dry hydrate may have reverted to calcium carbonate. Practitioners looking for a pure source of calcium hydroxide tend to prefer lime putty.

19.10 **Hydraulic Lime Putty** is also produced by much the same method as dry hydrate of lime but using limestone that contains a proportion of fine clay or silica in suspension. The advantage of a hydraulic lime is that it sets more rapidly and does not need to be in contact with the air to set. (A hydraulic set can also be achieved by adding a fine powder of fired clay or certain other 'pozzolanic' materials to ordinary lime putty.) The percentage of fine clay or silica in suspension determines the reactivity of the material, which ranges from eight per cent through to 25 per cent and is often categorised as feebly, moderately or eminently hydraulic.

19.11 **Portland Cement** is produced by burning together carefully measured quantities of relatively pure limestone and clay, which are then crushed and fired at higher temperatures to produce the very reactive material. A mortar made with Portland cement sets rapidly but for traditional construction it has the disadvantage of being much harder, less flexible and less porous than a mortar made with lime.

WHY USE LIME?

19.12 ***Lime allows buildings to breathe***

In the search for building materials sympathetic to traditional construction, lime was found to the one of the most important. Lime binders are promoted by the Society for the Protection of Ancient Buildings for repairs because they allow buildings to breathe.

Lime provides a comfortable environment

19.13 Hygroscopic materials such as lime plasters, mortars and renders stabilise the internal relative humidity by absorbing and releasing moisture. This makes for a more comfortable environment and reduces surface condensation and mould growth.

Free lime enables autogenous healing by precipitation

19.14 When buildings made with lime are subjected to small movements they are more likely to develop many fine cracks than the individual large cracks which occur in stiffer cement-bound buildings. Water penetration can dissolve the 'free' lime and transport it. As the water evaporates, this lime is deposited and begins to heal the cracks. This process is called autogenous healing.

Free lime encourages the growth of calcite crystals

19.15 Calcite crystals tend to be larger than those formed by more complex compounds. The crystals form in voids in lime-rich environments. Crystal growth therefore adds strength over time and allows more permeability than dense mixes with little or no free lime.

Lime provides good adhesion

19.16 The fine particle size of lime, far smaller than cement, is linked to the root meaning of the word 'lime', which is 'sticky material'. Due to the fine particle size mixes penetrate minute voids in the background more deeply than other materials. They bind gently and the stickiness gives good adhesion to other surfaces.

Lime mortars can protect adjacent materials

19.17 Lime mortars with high free lime content have the benefit of high porosity and high permeability. These characteristics allow lime mortars to protect other adjacent materials by handling moisture movements through the building fabric and protecting masonry materials from harmful salts.

Lime renders can assist drying out by evaporation

19.18 Dense and impermeable renders can trap moisture within the building fabric. Trapped moisture is often the catalyst for various decay mechanisms. Dense renders used in conjunction with softer materials or on weaker backgrounds can cause serious problems by trapping moisture and creating high local stresses. High calcium lime renders allow evaporation and reduce the risk of trapped moisture and decay.

Lime mixes have good workability

19.19 The ability of a mortar or plaster to remain smooth and mouldable, even against the suction it may experience from porous materials, is termed workability. Good workability greatly assists good workmanship, helping to achieve full joints with good bonding to the other materials. This is what makes lime-based mixes such a pleasure to use.

Lime binders can be durable and have stood the test of time

19.20 When used carefully, lime is exceptionally durable. Caesar's Tower at Warwick Castle has stood the test of time for over 600 years, and many cathedrals have stood longer. An outstanding example is the Pantheon Temple in Rome, which has a lime concrete dome spanning over 43 meters (142 feet). This has survived for nearly 2,000 years.

Lime finishes are beautiful

19.21 The double refraction of calcite crystals give a unique aesthetic combining a soft texture with a lustre that has a liveliness and delight of its own. There is no evidence to support the view that a limewash finish on a building requires more maintenance or does not last as long as a modern finish. As lime is a porous material, it changes colour when it is wet. It will dry out and the visual appearance of the building will be returned.

Lime contributes to a healthy environment

19.22 Due to its alkalinity fresh lime is caustic and has been used, often in the form of limewash, for its disinfectant qualities. Lime is also used for water purification.

The use of lime has ecological benefits

19.23 Lime stone can be burnt at relatively low temperatures to achieve full calcinations. Kilns need to reach 900 to 1,000ºC as opposed to 1,300 to 1,400 for OPC (Ordinary Portland Cement). Free lime absorbs carbon dioxide in the setting process of carbonation. It is possible to produce lime locally on a small scale and if this is done the consequent reduction in long distance transport also has ecological benefits.

Local limes enhance regional identity and diversity

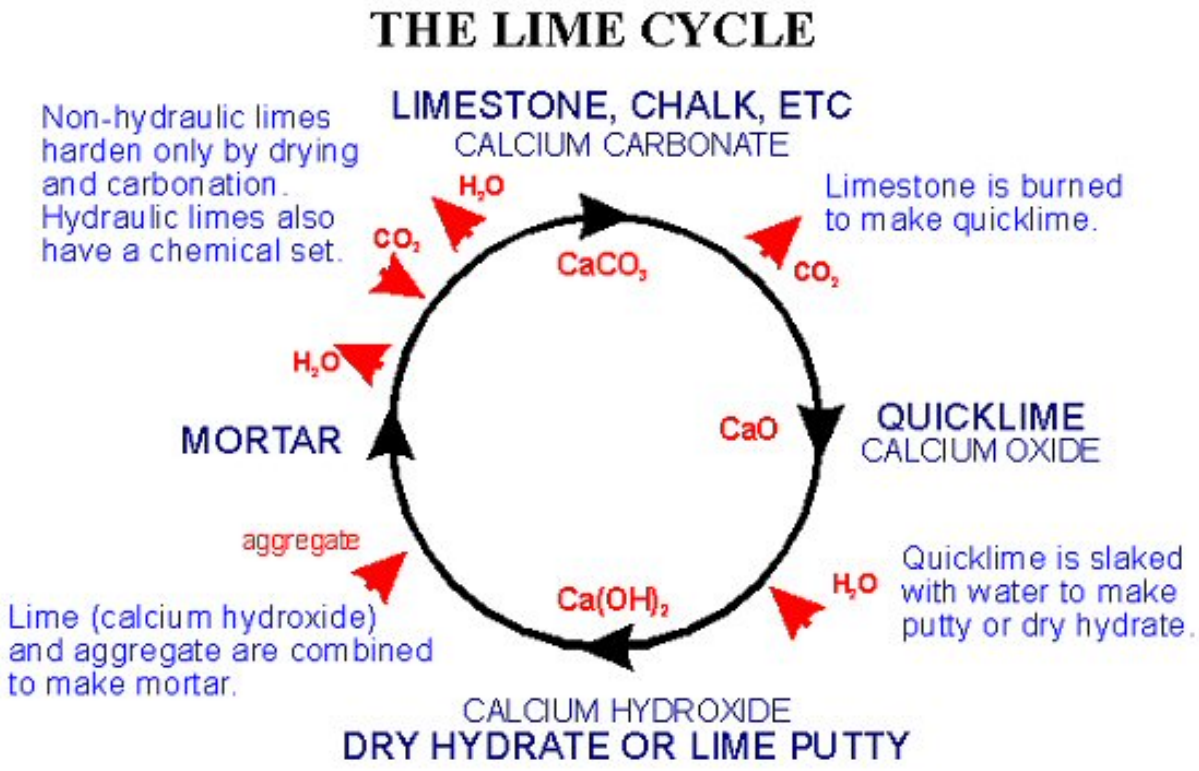
19.24 The diversity of limestone types provides variety and local distinctiveness. Different limes will vary in colour, texture and setting properties. Local limes have a local identity; they give a sense of place and provide a continuous link with the local aesthetic. Local colour of limewash is an example of such a tradition.

Disfiguring by excess cement can be avoided by the use of lime

19.25 On site the temptation to use quick and easy solutions for short-term gain can lead to long-term problems. The attraction of using excess cement to be 'safe' is understandable if not desirable. The fact that it is plentiful, inexpensive and readily available adds to the problem. There is a high probability that over-strong and dense mixes that are not fit for purpose will be used in excess. The physical

damage and unsightly aesthetic that results from this can be avoided by the use of lime.

19.26 This is an extract from *An Introduction to Building Limes* by Stafford Holmes, presented to the Foresight Lime research Conference at Manchester University on 19 November 2002.



APPENDIX 3

VAT AND LISTED BUILDINGS

20.1 South Cambridgeshire District Council is not responsible for any VAT related issues with Listed Buildings. It is the responsibility of the owner and the builder or architect to discuss any savings with the appropriate tax office. The legislation regarding VAT is complex and should be understood before making any claims for zero ratings. However, please consult the Customs and Excise Office for complete information and requirements.

APPENDIX 4

GLOSSARY

Glossary terms often change over time; therefore the following terms should be taken within the context and be used as a guide.

Barge	Bargeboards -- also called verge boards -- hang from the projecting end of a roof. Bargeboards are often elaborately carved and ornamented.
Bed	A prepared heap of longstraw from which a yealm is drawn.
Bio-mass	Recycled materials (such as plant matter) formed into a reusable fuel source within a heat pump system
Blockcut ridge	Raised ridge, traditionally found on roofs thatched in water reed.
Butt	The lower end of a bundle of straw or water reed.
Butting	Dressing the butt ends by dropping onto a hard clean surface.
CABE	Commission for Architecture and the Built Environment.
Character (of a building)	The significance, value, visual aesthetic, materials-qualities or features that make the building architecturally and historically significant.
Clay bat/lump	Building construction material starting in the 19th century using local unfired blocks made from clay and straw.
Clunch	A soft limestone from the lower chalk used as a building construction material.
Conditions (associated with Listed Building Consent)	Listed Building Consents for works, which are approved by the Council, are likely to be conditional. The reason conditions are placed on the consent is to ensure the appropriate details, materials or methods are used, stipulate particular items are clarified, recorded or submitted, or to set a timescale on the permission. All conditions must be formally discharged, in writing, prior to any works being carried out or in line with any other requirements given.
Crown glass	Glass blown and spun into a disk. A bull's eye is formed where the rod is attached.
Curtilage / Curtilage Listed	Curtilage is the associated land and property with the Listed Building and any buildings on the property dating before 1948 which had an ancillary use to the main Listed Building.

Cylinder glass	Cylinder glass, sheet glass made by blowing the glass in the form of a cylinder, which is then split longitudinally, opened out, and flattened.
DDA	Disability Discrimination Act 1995/2004.
DPC	Damp proof course.
DPM	Damp proof membrane.
Ear	The upper end of wheat straw that contained the grain prior to threshing.
Eaves	Horizontal overhanging edge of a building's roof.
Embodied energy	Embodied energy is the total primary energy consumed during the lifetime of a product, ideally from the extraction of raw materials (inc fuels) to the end of the products lifetime (including energy from: manufacturing, transport, energy to manufacture capital equipment, heating & lighting of factory...etc). The energy consumed to construct the building and to manufacture the materials of construction becomes greater than repairing an existing building.
Enhancement	In regards to Listed Buildings, carrying out works which improves or increases the visual setting, appearance and character, replacing or reintroducing appropriate historic details and materials.
Eyebrow dormer	Eyebrow shaped dormer traditionally seen in longstraw thatch.
Fabric	The fabric of a building is the building material itself, historic fabric refers to the historic building materials, e.g. lathe, plaster, timber.
Fenestration	Any window or door opening.
Fleeking	A woven mat of water reed used traditionally as a base to the thatch and an alternative to battens.
Float glass	Sheet of glass made by floating the molten glass on a bed of molten tin.
Flue	A channel in a chimney that transports smoke from the fire to the outside.
French drain	To assist with drainage, a French drain is a trench laid around the perimeter of the building with a perforated tube placed underground and gravel above. This takes water away from the building.
Furniture	Relates to fittings of a window, door, etc. For example, hinges, handles, closers, letter boxes, door knockers, etc.
Gault clay	Local clay in Cambridgeshire fires to a buff colour used to make bricks, roof tiles, etc.

Joinery	Visible finished woodwork in a house, including panelling, doors, windows, skirting boards, railings, cornices, shutters, staircases, door and window frames.
Lath and plaster	Laths, made from chestnut, oak or softwood, were applied directly to timber frame generally over the studs with lime plaster applied between.
LBC	Listed Building Consent- formal permission to carry out works to a Listed Building.
Leggett	Wooden tool shaped like a bat with a grooved surface, used to dress or drive water reed and combed wheat reed into place to create an even surface that results in a uniform, crisp, sharp appearance.
Ligger	Hazel or willow sapling pegged down by spars used to secure and decorate thatch.
Limecrete	A combination of concrete and lime used as a solid flooring material, which allows degrees of breathability and flexibility.
Listed / Listed Building	A building of special architectural and historic interest which has been nationally recognised by the Secretary of State and placed on a national register of buildings, Graded II, II* or I.
Lych gates	Roofed gate in a churchyard under which a bier rests during the initial part of the burial service.
Macerator	Plumbing term for the mechanical handling of waste.
Micro generation	Defined by the Government as, 'The production of heat and / or electricity on a small-scale from a low carbon source'.
Ogee	A double curved moulding, one concave the other convex, used to refer to gutter profiles.
Pamment	Traditional clay floor tiles, usually square.
Pan tile	Traditional clay tiles curved to interlock together.
Partition	Wall dividing a space or room.
Part L	Section of the Building Regulations relating to energy efficiency.
Part M	Section of the Building Regulations relating to disabled access to buildings.
Paviour	Traditional clay bricks, used externally for flooring.
Peg tile	Early clay tile with one or two holes for a wooden peg hooked onto laths (nails were used later).
Pencilling	A white limewash over painted on top of mortar joints. This faux effect suggested precise narrow joints.

Permitted Development	A general Planning permission (known as 'permitted development rights') for certain types of minor development, not normally associated with Listed Buildings.
Photo voltaic	Solar powered unit using the sun's energy to generate electricity.
Plain tile	Early clay tile which is flat.
PPG	Planning Policy Guidance.
Rainwater goods	Name for gutters and down pipes associated with the drainage of rainwater from the building.
Reed fleeking	A woven mat of water reed used as an alternative to battens.
Reversibility	Reversible is a term used to describe works which could be removed later and not permanently affect the Listed Building.
Ridge	The apex of a roof.
Ruddle / Ruddling	A red limewash used as 'paint' over masonry.
Screed	A screed is a flat board used to smooth concrete after it has been placed on a surface commonly used to distribute a solid concrete floor.
Shoof grass	Marsh grass found in reed beds and sometimes mixed with water reed and other plants in water reed thatches.
Situ	In its original place, an artefact or feature still located in its original location, not moved.
Slate	Geological term for rock that splits along the grain, typically from north Wales.
SmartWater	SmartWater is a colourless liquid solution that is simply dabbed onto the uneven surfaces of your valuables marking them with an invisible code that the police can use to trace if stolen.
Smoke-blackened thatch	Underside of thatch dating from the Middle Ages that is coated with soot from an open fire, prior to the introduction of chimneys.
Solar panel	A panel placed in the direction of the sun, which captures the sun's energy and converts it to either electricity or heat for water.
Sole plate	A horizontal timber that sits on a brick plinth in a timber framed building.
Spalling	The surface of masonry by the loss of fragments usually caused by water getting in, then freezing and blowing the surface material.
Spar	Split hazel or willow saplings about 60cm (21in) long, triangular in section, bent through 180 degrees and used for securing new thatch to old or securing liggers whilst ridging.

Spark arrester	A device designed to keep sparks from escaping, from a chimney flue.
Statutory List	A nationally held list, maintained by the Secretary of State, for all Listed Buildings.
Sway	In thatched roof construction, one of the willow, hazel or metal rods laid at right angles to the thatch to hold it in position.
Threshing	The process of removing grain from wheat by hand or machine.
Trimmers	A beam across an opening, such as a staircase, into which the ends of joists can be fitted.
Twisted tarred cord	Historic twine that is tarred, used to secure thatch to the rafters.
Verge	Vertical edge of a roof projecting over a gable.
Wall plate	Load bearing timber supporting the first floor or roof, similar to sole plate, which is used to support the ground floor walls.
Wattle and daub	Infill material between timber frame members. Wattles are the vertical timber sticks (made from hazel, oak) to which daub (clay with straw) was applied.
Yealm	A prepared drawn layer of wetted longstraw 350-450mm (14-18 in) wide and 100mm (4 in) thick.

APPENDIX 5

CONTACT DETAILS AND FURTHER INFORMATION

Conservation and Design Section
South Cambridgeshire District Council
South Cambridgeshire Hall
Cambourne Business Park
Cambourne
Cambridgeshire
CB23 6EA

TEL: 08450 450 450
FAX: 01954 713152
Website: www.scambs.gov.uk/

USEFUL WEBSITES

- Building Conservation www.buildingconservation.com
- English Heritage www.english-heritage.org.uk
- Institute for Historic Building Conservation www.ihbc.org.uk
- Images of England www.imagesofengland.co.uk
- Heritage Gateway www.heritagegateway.org.uk
- Historic Scotland www.historic-scotland.gov.uk
- Pevsner Architectural Guides www.lookingatbuildings.org.uk
- PPG 15 and 16 www.communities.gov.uk
- Planning (Listed Buildings and Conservation Areas) Act 1990 www.opsi.gov.uk/acts/acts1990
- Royal Institute of British Architects www.riba.org
- Society for the Protection of Ancient Buildings www.spab.org.uk
- Vision of Britain www.visionofbritain.org.uk
- Disability Discrimination Act www.direct.gov.uk/en/DisabledPeople/RightsAndObligations
- Disability Discrimination Act www.opsi.gov.uk/acts/acts1995

- Church of England, Church care www.churchcare.co.uk
- Energy Saving Trust www.energysavingtrust.org.uk
- Planning (Listed Buildings and Conservation Areas) Act 1990 www.opsi.gov.uk
- Historic Environment Local Management www.helm.org.uk
- Royal Institute of Chartered Surveyors www.rics.org.uk
- English Heritage and climate change www.climatechangeandyourhome.org.uk
- Funds for historic buildings www.ffhb.org.uk
- Architectural Heritage Fund www.ahfund.org.uk
- Planning Portal www.planningportal.gov.uk
- Georgian Group www.georgiangroup.org.uk
- Victorian Society www.victoriansociety.org.uk
- Garden History Society www.gardenhistorysociety.org
- 20th Century Society www.c20society.org.uk
- Ancient Monuments Society www.ancientmonumentssociety.org.uk
- Council for British Archaeology www.britarch.ac.uk
- Maintain our Heritage www.maintainourheritage.co.uk
- Maintain your building www.maintainyourbuilding.org.uk
- Thatching Association www.thatch.org
- East Anglia Master Thatchers www.eamta.co.uk

FURTHER READING:

General

- *Old House Handbook: A Practical Guide to Care and Repair, 2008*. London: SPAB
- *Informed Conservation, 2001*. London: Kate Clark, English Heritage

- *Conservation Principles Policies and Guidance: for the Sustainable Management of the Historic Environment, 2008*. London: English Heritage

- *Planning Policy Guidance Note 15, 1994*. London: CLG

- *Planning Policy Guidance Note 16, 1990*. London: CLG

- *Understanding Historic Buildings: A guide to good recording practice, 2006*. London: English Heritage

- *Living Buildings in a Living Landscape: finding a future for traditional farm buildings, 2006*. University of Gloucestershire: English Heritage

- *The Conversion of Traditional Farm Buildings: A guide to good practice, 2006*. London: English Heritage and HELM

- *Listed Buildings and Conservation Areas,* Fourth edition, Sweet and Maxwell 2006, Mynors, Charles

English Heritage, HELM and SPAB, all have excellent guidance and advice both on their website and in publications.

Thatch

- Society for the Protection of Ancient Buildings, (1990) The Care and Repair of Thatched Roofs

- Rural Development Commission, (1988) The Thatchers Craft

- West R., (1989) Thatch – a manual for owners, surveyors, architects and builders

- English Heritage, (1999) Thatch and Thatching

- English Heritage Research Transactions Volume 5, (2000) Thatch – Thatching in England 1790 – 1940

- English Heritage Research Transactions Volume 6, (2000) Thatch – Thatching in England 1940 - 1994

Archaeology

- *Archaeology and Planning* (PPG16). London; HMSO

- Ancient Monuments and Archaeological Areas Act 1979

- Department of the Environment (DoE) 1990. Planning Guidance Note 16

Ecclesiastical Buildings

- *The Ecclesiastical Exemption (Listed Buildings and Conservation Areas) Order 1994.* London: HMSO

- English Heritage 2003. *New Work in Historic Places of Worship*. London: English Heritage

Church of England

- *The Care of Churches and Ecclesiastical Jurisdiction Measure* 1991. London: HMSO

- *Faculty Jurisdiction (Care of Places of Worship) Rules* 2000. London: The Stationery Office

- The Council for the Care of Churches has published useful guidance booklets on church extensions and adaptations, servicing and other subjects. Church House Publishing www.chbookshop.co.uk

Baptist Union

- LB1 (09/2006) *Introducing the Listed Building Advisory Committee*

- LB2 (08/2004) *Applying to the Listed Building Advisory Committee*

United Reformed Church

- Procedure for Control of Works to Buildings, 2005

Methodist Church

- Useful information can be found in the, *"Resourcing Mission"* section of the Methodist website www.methodist.org.uk

Agricultural Buildings

- English Heritage 2004c, *Farming the Historic Landscape: Caring for Farm Buildings*. London: English Heritage

- English Heritage 2006, *The Conversion of Traditional Farm Buildings: A Guide to Good Practice*. London: English Heritage

- English Heritage / Countryside Agency 2006 *Living Buildings in a Living Landscape: An English Heritage and Countryside Agency Statement on Traditional Farm Buildings*

STATUTORY CONSULTEES

English Heritage
East of England Region
24 Brooklands Avenue
Cambridge
CB2 2BU

Victorian Society
1 Priory Gardens
Bedford Park
London
W4 1TT

Society for the Protection of Ancient Buildings
37 Spital Square
London
E1 6DY

Council for British Archaeology
St Mary's House
66 Bootham
York
YO30 7BZ

Ancient Monuments Society
St Ann's Vestry Hall
2 Church Entry
London
EC4V 5AB

The Georgian Group
6 Fitzroy Square
London
W1P 6DX

The Twentieth Century Society
70 Cowcross Street
London8
EC1M 6BP

THATCHING ASSOCIATIONS

The East Anglian Master Thatchers Association
C/o The Secretary
Green Farm
Burgate Great Green
Wortham
Diss
Norfolk IP22 1QL
Tel: 01379 783457

East Midlands Master Thatchers Association
C/o the Secretary
Honeysuckle
Haverhill road
Horseheath
Cambs CB1 6QR

National Society of Master Thatchers Ltd
C/o The Secretary
13 Parkers Hill
Tetsworth
Oxford OX9 7AQ
Tel: 01844 281208

The Home Improvement Agency
South Cambridgeshire District Council
Cambourne Business Park
Cambourne
Cambridgeshire CB23 6EA
Tel: 08450 450500

WHERE TO GET COPIES OF THE LEGISLATION:

- Planning (Listed Building and Conservation Areas) Act 1990 www.hmso.gov.uk/acts/acts1990/Ukpga_19900009_en_1.htm

- Planning Policy Guidance Note 15: Planning and the Historic Environment (September 1994) www.planning.odpm.gov.uk/ppg/ppg15/index.htm

FREE LEAFLETS

- A Stitch in Time - Maintaining Your Property Makes Good Sense and Saves Money: a useful free leaflet for owners of historic buildings produced by SPAB and the IHBC.

- The Georgian Society, English Heritage and Victorian Society both produce free leaflets dealing with specific issues i.e. Georgian Brickwork (GG), Dormer Windows (EH) etc.

Department of Culture, Media and Sport

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SW1Y 5DH
Tel: 0207 211 6200
www.culture.gov.uk

Heritage Information

www.heritageinformation.org.uk

Building Conservation Directory

www.buildingconservation.com

APPENDIX 6

FREQUENTLY ASKED QUESTIONS AND COMMON MISCONCEPTIONS

'Only the outside of a building is Listed'

No! All of the building is Listed- inside and out, including buildings and structures in the grounds of a Listed Building that were built before 1948 or attached to the Listed Building are also covered by the same legislation and are treated as Listed Buildings.

'I can alter the inside of a Grade II Listed Building without Consent'

No! No matter what Grade the building is, if the works affect the building's character, you will need to apply for Listed Building Consent.

'Because my house was built in the seventeenth century I can remove parts added later than that without the need for consent'

No! Often later alterations are just as important because they show the development of the building. Their removal usually needs consent.

'My house is Listed, so I can't do anything to it'

No! You may need to apply for Listed Building Consent if the works affect the character, setting or historic fabric of the building. **But the best advice is to contact the Council with any questions**

'I can do what I want to the building in my garden'

Maybe not, if the building in the garden was built before 1948, the building will be Curtilage Listed.

FACTS REGARDING UPVC DOUBLE GLAZING:

Life span:

- Short life span of 10-15 years (not decades like timber)

Maintenance:

- Seals dry out, frames crack or become brittle, discolour in the sun
- They DO require maintenance and painting
- Impossible to repair, unlike timber windows
- Condensation problems

Environmental:

- Not sustainable, large carbon footprint and NOT capable of being recycled, does not break down, energy intensive production using toxic chemicals
- They provide only minimal energy savings compared to cost of production
- Can provide warmer spaces, but could promote a damper climate internally leading to decay, mould and health problems through vapour barrier
- Releases toxic chemicals if burned

DISCOUNTING MYTHS:

- Old windows account for 20% or more of the heat loss from a building – FALSE
- Double glazing saves you 20% heat loss – FALSE
- Every building is different; the windows may not be the only air gap in the building. If there is a concern about heat loss, a simple and cost effective air pressure test can be carried out to identify where any significant gaps are. Then a well-informed discussion can take place to determine what the best course of action is for that particular situation.

APPENDIX 7

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The following organisations and their websites were referred to in drafting this document:

- English Heritage
- The Society for the Protection of Ancient Buildings
- The Institute for Historic Building Conservation
- Communities and Local Government
- Planning Policy Guidance Note 15
- Planning Policy Guidance Note 16
- Kate Clarks *Informed Conservation*
- *Old House Handbook; A Practical Guide to Care and Repair*
- Energy Savings Trust
- Planning (Listed Buildings and Conservation Areas) Act 1990
- Town and Country Planning Act 1990