Rother District Council

WINDOWS IN BEXHILL TOWN CENTRE CONSERVATION AREA

Technical Advice Note 3

Overview and Scrutiny version - 29 September 2022 (version 2)

(This revised draft follows a further edit to improve readability and clarity. The explanations and scenarios remain the same.)

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Technical Advice Notes (TANs)

1. We have produced a series of Technical Advice Notes (TAN) to support the Adopted Development Plan (Core Strategy 2011-2028; Development and Site Allocations Plan; and made Neighbourhood Plans). TANs provide technical advice to developers and decision-makers but are not adopted policy documents and should not be read as such. TANs do not set out new planning policy. The TANs may be updated from time to time to reflect changing circumstances or best practice.

Introduction

2. This Technical Advice Note explains how adopted Development Plan policy will be applied in situations where applications to alter or replace windows in the Bexhill Town Centre Conservation Area are submitted. Relevant policies are:
   - Policy DHG9 of the Rother Development and Site Allocations (DaSA) Local Plan (2019); and
   - Policies BX2, EN2, EN3, SRM1 and OSS4 of the Rother Local Plan Core Strategy (2014);

3. This TAN has been prepared to provide advice on how the Council's adopted planning policies should be applied to planning applications for alterations to, or replacement of, windows within the distinctive special character of the designated Bexhill Town Centre Conservation Area.

4. This TAN should not be referred to for works to buildings outside of the Bexhill Town Centre Conservation Area or to Statutorily Listed Buildings.

When planning permission is required

5. Repairs, maintenance, and minor improvements to windows and doors, such as repainting, do not normally require planning permission. For dwelling houses, the insertion of replacement windows of a similar appearance is often permitted development[1], but homeowners are advised to seek advice and a formal decision as to whether planning permission is required, to submit an application for a Certificate of Lawful Development – Proposed.

6. However, flats and maisonettes, as well as commercial buildings, do not benefit from permitted development, and therefore replacements of, or alterations to, windows and doors in these circumstances do require planning permission.

Legislative and Policy Framework

Planning (Listed Building & Conservation Areas) Act 1990

7. Conservation Area status is a statutory designation. Conservation Areas are defined in the Planning (Listed Buildings & Conservation Areas) Act 1990 as:

> *"areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance"*[2]

8. It is the responsibility of individual Local Planning Authorities to designate and review Conservation Areas.

9. Section 72 of the Planning (Listed Buildings and Conservation Areas) Act 1990 confers a statutory duty to local planning authorities when exercising planning functions, to pay special attention to the desirability of preserving or enhancing the character or appearance of that area.

National Planning Policy Framework

10. The National Planning Policy Framework[3] is a national policy document which sets out the criteria for making planning decisions in conjunction with local policies. Paragraphs 8, 130 and the entirety of Section 16 which relates to conserving and enhancing the historic environment, are particularly relevant to planning applications for replacement doors and windows in Conservation Areas.

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[1] The legislation can be found at: http://www.legislation.gov.uk/uksi/2015/596
[2] Planning (Listed Buildings and Conservation Areas) Act 1990 (legislation.gov.uk)
[3] National Planning Policy Framework (publishing.service.gov.uk)

Local Plan Policy

11. When making planning decisions, the local planning authority will consider the Local Plan as a whole, as well as any material planning considerations. However, to explain how proposals for alterations to windows and doors in the Bexhill Town Centre Conservation Area are considered under current policy, the following parts of the Local Plan are highlighted:

Rother Local Plan Core Strategy

- Policy BX2 (Bexhill Town Centre)
- Policy EN2 (Stewardship of the Historic Built Environment)
- Policy EN3: Design Quality
- Policy SRM1: Towards a low carbon future
- Policy OSS4: General Development Considerations

Rother Development and Site Allocations (DaSA) Local Plan

- Policy DHG9

Other policies

12. Rother District Council has also adopted other strategies and policies that are considered to be relevant to this technical advice note.

Rother Environment Strategy 2020-2030

13. Rother District Council declared a Climate Emergency in September 2019 and pledged to be carbon neutral by 2030. The Rother Environment Strategy 2020-2030 (adopted September 2020) defines priority areas and sets pledges to meet its target, including:
    - Green economy – working with partners to encourage retraining and reskilling in retrofit, insulation and environmentally friendly industries;
    - Sustainable waste management – encouraging a focus on preventing waste through the use of less materials, re-use and less hazardous materials and preparing for re-use through cleaning, repairing, refurbishing and repairing.
    - Construction and existing buildings – seeking funding to support retrofitting existing housing throughout the district.

14. The Council is a member of the UK Green Building Council, which seeks to radically improve the sustainability of the built environment, by transforming the way it is planned, designed, constructed, maintained and operated.

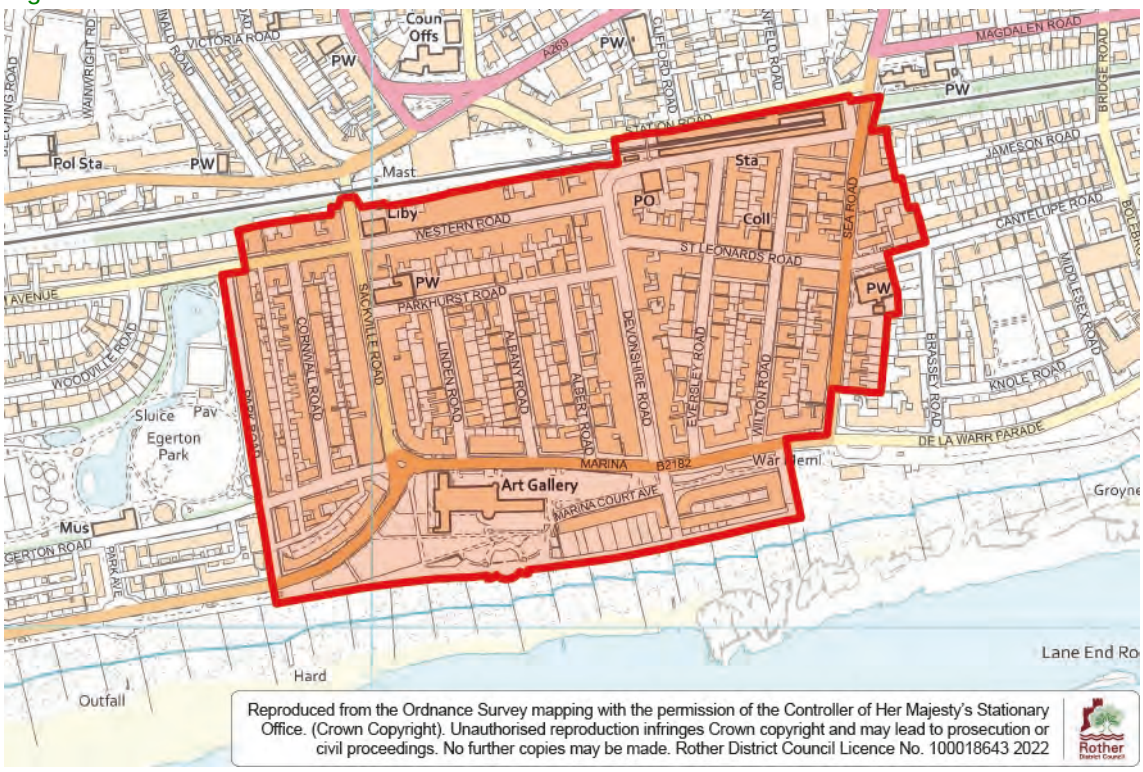
Bexhill Town Centre Conservation Area

15. Bexhill-on-Sea Town Centre provides a fine example of an unusually complete Edwardian townscape built principally between 1880 and 1905 under the patronage of the 7th and 8th Earls De La Warr, who pursued a vision of creating a fashionable seaside resort.

16. The flat land to the south west of the Old Town of Bexhill, between the railway line and the beach, was made suitable for development by the construction of the sea wall, and the town was planned with a grid pattern of streets which mainly lie either at right angles or parallel to the shore. The wide Devonshire Road was laid out as the principal shopping street, running north-south, as does Sackville Road, while Western Road and St Leonard's Road run east-west. These formed the main commercial streets, and continue to do so to this day, while in between run north-south subsidiary residential streets. This well-integrated mix of uses is a key part of the character of the town.

17. Bexhill town centre was designated a Conservation Area in 1992, in recognition of its architectural and historic significance, and reviewed in 2003. The Conservation Area Appraisal, adopted on 24 February 2004, highlights the unique plan form of the town, its architectural styles, detailing and ornamentation and its building materials, as well the role played by open spaces, trees and vistas, including the Seafront and Devonshire Square.

Figure 1: Bexhill Town Centre Conservation Area



18. The character of the Conservation Area is greatly informed by the short period of construction of most of the buildings in the town centre resulting in a particularly homogenous architecture, with a variety of examples of competent late Victorian/Edwardian architecture including lavish ornamentation and elaborate detailing. These buildings are typically three or four storeys high along the commercial streets, with residential upper storeys and ground floor shop frontages of various degrees of historic value and condition of repair, while in the wholly residential streets a more domestic scale storeys prevails.

Figure 2: Photo of Devonshire Road, 1900

Figure 3: Photo of Park Road, 1895

19. The rich heritage of this architecture, imposing in scale and ornate in detailing, plays an important role in defining the local character and street scene. Numerous features contribute to the elevational appearance of the late Victorian/Edwardian buildings within the conservation area, including top floor open pediments or ornate Dutch gables, projecting bays at first and second floor, fenestration patterns and sash windows, balconies with wrought iron balustrading, and the use of decorative pilasters, corbels, string courses, quoins and keystones. Collectively these features impart much of the historical character and distinctive appearance of the Conservation Area. The cohesive appearance of the Conservation Area is promoted through semi-detached visual pairs and full terraces that adopt a clear symmetry and rhythm within the street scenes across the Conservation Area and conveys a sense of architectural integrity and strength.

Why is the Conservation Area important?

20. Conservation areas are designated because of their visual and historic value. If well maintained and presented, conservation areas provide a social and cultural appeal to the area, subsequently boosting economic performance, quality of life and desirability.[4] It may also be of note that nationally, properties within conservation areas are typically worth 23% more than a comparable property elsewhere[5].

21. Maintaining and strengthening the character and appearance of the Edwardian core of the Conservation Area has underpinned many of the Council's successful economic regeneration initiatives, including:

- A Heritage Economic Regeneration Scheme, supported by Historic England, which awarded shopfront repair and replacement grants to 28 shops in Bexhill town centre, bringing a number of vacant shops back into use at the time.
- The securing of European funding through the Interreg programme to install heritage style lampposts in Sackville Road.
- The Next Wave West Parade Scheme; a major investment in the public realm by RDC, supported by the then Commission for Architecture & the Built Environment, which aimed to support the core section of Bexhill's seafront to become a high-quality destination for both residents and visitors, with consequential regeneration benefits for the whole town.
- Securing East Sussex County Council highways and public realm improvement works to Devonshire Square, Devonshire Road, and Marina, with the aims of enhancing economic vitality and appearance in the town centre and improving the pedestrian experience.

22. These public sector investment projects have sought to both increase footfall and spending power in the town centre to encourage private sector investment, and to help strengthen the Conservation Area's special architectural and historic character and have demonstrated the economic and social value of attractive and well-maintained buildings and spaces to everyone who uses the town centre.

23. However, despite considerable investment, the character of the conservation area continues to be undermined in some instances by inappropriate alterations to buildings, including the loss of architectural detailing and the installation of non-traditional windows.

[4] https://historicengland.org.uk/images-books/publications/heritage-works/

[5] https://historicengland.org.uk/images-books/publications/traditional-windows-care-repair-upgrading/heag039-traditional-windows-revfeb17/

Why Windows Matter

24. Historic England is an executive non-departmental public body sponsored by the Department for Digital, Culture, Media and Sport (DCMS). It carries out a range of functions that help people care for, enjoy and celebrate England's historic environment, including carrying out a range of specialist research and publishing a wide range of advice, including technical guidance, advice on caring for heritage, and heritage in the planning system.

25. Historic England recognise the urgent need for climate action and believe that England's existing buildings have an essential role to play in fighting climate change. Older buildings have survived because of their durability and adaptability. Continuing to adapt, upgrade, repair and maintain them so they remain useful and viable makes good social, economic and environmental sense.

26. Historic England has carried out a large number of research programmes, focussing on understanding and improving the energy performance of historic buildings and the effects of measures to increase energy efficiency. This research has underpinned the range of guidance and advice that they have produced, particularly with regard to windows in the historic environment.

27. Historic England provides the following advice on its website:

> "*Traditional windows make an important contribution to the visual character and heritage significance of historic buildings and areas. They are integral to the design of older buildings and can be important artefacts in their own right, made with great skill and ingenuity from high quality materials not generally available today. When contemplating improvements to save energy and reduce fuel bills, owners and residents of historic buildings often think first about replacement windows.*
>
> *Many traditional windows have been lost because old windows are thought to be burdensome to maintain and not energy efficient. But research carried out by Historic England has shown that they can be made to meet current thermal performance requirements economically and with minimal harm to significance. Furthermore, they are durable, functional and repairable and if properly maintained will last longer than many types of replacement. Therefore, this 'repair not replace' approach makes good social, economic and environmental sense."*

Heritage & Sustainability

28. Generally speaking, improving the energy efficiency of unlisted buildings in conservation areas means reducing heat losses wherever possible without damaging the special character and appearance of the conservation area.

29. Historic England's overarching guidance "Energy Efficiency and Historic Buildings: How to Improve Energy Efficiency"[6] sets out their holistic 'whole building approach' which considers:
    - Context;
    - Construction;
    - Condition;
    - Historic significance;
    - An understanding of all the factors that affect energy use; and
    - How to devise an energy efficiency strategy for any building.

30. The 'whole building' approach recognises that the thermal efficiency of historic buildings can be greatly improved without replacing windows that contribute to their significance. Rather than focusing entirely on windows, it is better to consider energy conservation measures that address the thermal efficiency of the whole of the building. In this way, the aim should be to strike an appropriate balance between energy conservation and building conservation. Adopting a 'whole building' approach can help in understanding where energy goes and identifying less harmful options to achieve energy savings.

31. With specific regard to works to windows, Historic England's website contains extensive practical guidance and research on this subject, including:
    - Traditional Windows: their care, repair and upgrading
    - Modifying Historic Windows as Part of Retrofitting Energy-Saving Measures

[6] Energy Efficiency and Historic Buildings: How to Improve Energy Efficiency (historicengland.org.uk)

PVCu windows in Bexhill Town Centre Conservation Area

32. Regarding replacement windows in PVCu, Historic England guidance sets out:

"Replacement plastic (PVC-u) windows pose one the greatest threats to the heritage value of historic areas, particularly in towns and villages. Despite attempts at improving the design of these windows they are instantly recognisable because they cannot match the sections and proportions of historic joinery."

Visual Appearance

33. Prior to designation as a conservation area, many properties in Bexhill town centre had inappropriate PVCu casement windows installed, of non-traditional style and design, which has caused significant detriment to the character and appearance of the conservation area.

34. While the range and design of plastic windows has increased over the years to include sliding sash PVCu units as well as the non-traditional 'tilt and turn' casement style units, it is very difficult to adequately replicate timber windows in PVCu; even PVCu sash windows still have clear failings in terms of appearance, including:

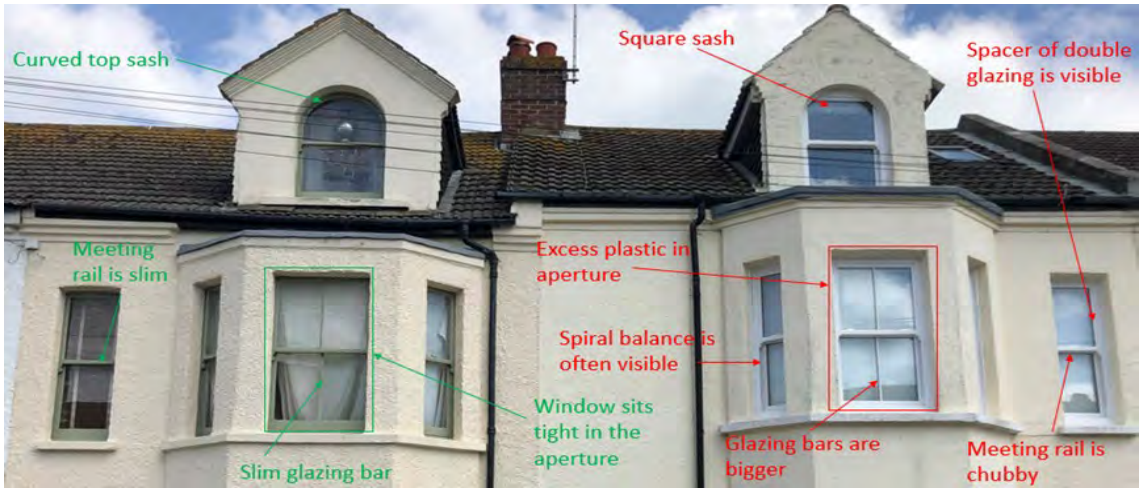
- The bulky and chunky dimensions and section sizes of the framing members and any applied moulding details of the new PVCu units - lacking the elegance and simple profiles of timber frame sashes that are a key element of their character.
- The changed relationship of the frame to glass area as a result of the larger frame sections; significant amounts of glazed area are lost, this distorts proportions and overall appearance.
- They usually adopt a spiral balance opening mechanism which can be seen and do not always faithfully reproduce the appearance of original windows.
- The finish of PVCu windows is overly flat and smooth, attracts dirt and often yellows over time.
- Finer details such as curved sashes and sash horns are often omitted

35. As well as the material itself, such considerations cumulatively have a major influence on the appearance of the windows and usually the character of the building as a whole.

36. Appendix 2 provides an annotated diagram setting out the key components of a traditional timber sash window.

37. The annotated photo below shows the variation between timber windows on the left and PVCu sash windows on the right.

Figure 4: Annotated photo showing variation between timber and PVCu windows



38. The photo to the right shows three bay windows in PVCu and one bay in timber, clearly showing the variation in proportions of framing members to glazing.

Figure 5: Photo example of timber and PVCu variation in proportions

Other PVCu issues

39. Whilst not solely a Conservation Area issue, nevertheless, environmental concerns regarding PVCu windows adds weight to the previously set out concerns regarding their visual impact on the character and appearance of the conservation area, particularly with regard to the Council's Environment Strategy and sustainable resource management policies. Alternative, and potentially more cost-effective, means to improve operational energy efficiency are set out elsewhere in this TAN.

40. When considering carbon emissions, the environmental impact of the material used is also important. Historic England highlight the relatively short service life of PVCu windows (compared to well-maintained traditional windows, many of which survive for over 100 years), and that PVCu windows are not maintenance-free, as is commonly believed, and can be difficult to repair, meaning they are usually replaced at the end of their service life. Although it is possible to recycle PVCu, this is still not done widely. Therefore, the carbon cost of a PVCu replacement window will be higher than an appropriately upgraded traditional window. Detailed commentary regarding the environmental impact of PVCu windows is provided in Appendix 1 to this TAN.

Implementing National & Local Plan Policy in Bexhill Town Centre

41. In assessing applications for works to windows and doors in the Bexhill Town Centre Conservation Area, and with regard to discharging our duties under Section 72 of the Planning (Listed Buildings & Conservation Areas) Act 1990, and implementing national and local planning policy, the local planning authority would generally follow Historic England advice regarding looking to retain, repair and thermally upgrade existing historic windows, or where an original window is beyond repair, then replacing with timber double glazed windows that closely match the original, which are longer-lasting and less carbon-costly than PVCu equivalents. This approach is expanded for specific scenarios over the following pages.

42. In doing so, the local planning authority are supporting the Historic England strategy to:

- Maintain and repair sympathetically with appropriate materials and techniques (since this approach is usually more sustainable than replacement.)
- **Consider window improvements in the context of a 'whole building approach' to energy efficiency**. This approach considers all the factors affecting energy use, to allow for the best balance between saving energy, maintaining a healthy indoor environment and sustaining heritage significance.
- **Think about the whole-life carbon costs** of alterations, not just the potential saving in operational energy and carbon. Some alterations can cost more in energy and carbon than they save during their service life.
- **Recognise it is possible to make houses more energy efficient and sustainable without harming their heritage significance**. The amount of heat lost through windows may be a relatively small proportion of the total, depending on the number and size of the windows. Therefore, improvements beyond repair and draught sealing may not be cost-effective in either financial or carbon terms.

Scenarios

43. This section presents a series of scenarios to increase understanding of how planning applications would be considered in the generic situations described. Note that each individual planning application proposal will be unique in terms of its detailed proposals and the existing context and each application will be determined in accordance with the adopted Local Plan unless material considerations indicate otherwise.[7] Usually only alterations affecting those elevations publicly visible, usually street-facing elevations and sometimes side elevations, are considered to impact on the character of conservation area, though this does depend on the individual site and context.

Scenario 1: Works affecting historic timber windows

44. The presence of traditional timber sliding sash windows within the Bexhill Town Centre Conservation Area makes a significant contribution to the character and appearance of the conservation area in terms of form, proportion, opening method, opening mechanism and overall appearance. Having regard to Section 72 of the Planning (Listed Buildings and Conservation Areas) Act, in all cases the council will seek to retain traditional historic timber windows.

45. Old windows are usually durable, functional and repairable if looked after. The quality of wood used to create original timber windows was excellent and has proven to be long lasting. Therefore, their replacement should be a last resort and will only be acceptable if repair and restoration is not possible. Repair is also most likely to be the cheapest option and provides an opportunity for upgrading to meet modern requirements of energy efficiency and enhanced comfort. There are many ways in which older timber windows can be improved that are not only sensitive to their historic context, but also are cost-effective and much more effective in carbon and energy terms than wholesale replacement. These aspects can be achieved through retrofitting existing timber windows, as explained in the ‘Retrofitting Existing Windows’ section below.

46. However, should an original window be in such a deteriorated condition as to require replacement, then a faithful, ‘like for like’, good quality timber reproduction is required in terms of proportion and dimension of framing members, appearance, opening method, opening mechanism and glazing bar pattern. Additional features such as modern glazing and draught proofing will be accepted if in accordance with the details outlined in the retrofitting section below.

[7] Section 38(6) of the Planning and Compulsory Purchase Act 2004

Retrofitting Existing Windows

It is acknowledged that energy efficient windows do contribute to comfort levels for residents and will reduce energy consumption which will not only reduce living costs but also potentially assist in tackling climate change. The retrofitting of original windows with draft excluders or energy efficient glazing can usually enable residents to realise all of these advantages without window replacement or adversely affecting the historic environment.

There are a number of retrofitting and upgrading measures that can help address the issues around heat loss and energy efficiency. A brief summary is provided below, but these measures are explained in more detail in the Historic England guidance documents/webpages:

- Traditional Windows: their care, repair and upgrading
- Modifying Historic Windows as Part of Retrofitting Energy-Saving Measures
- Improving Thermal Performance of Windows and Doors in Historic Buildings
- Energy Efficiency and Historic Buildings: Draught-proofing Windows and Doors
- Research into the Thermal Performance of Traditional Windows: Timber sash windows

Draught proofing

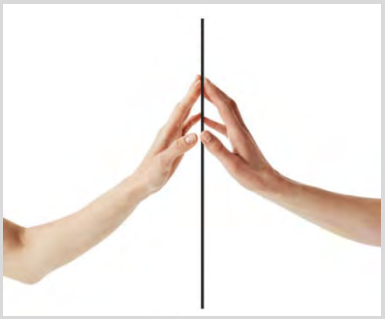
Inserting draught proofing will provide the biggest energy saving and conservation benefits for the lowest environmental and financial costs[8]. Historic England research has shown that less than a quarter of the heat lost through a typical traditional window escapes by conduction through the glass, the rest is by draughts (air infiltration). Since draughts make people feel colder, the occupants often turn up the heating and run it for longer. Draught exclusion rubber strips and brush pile strips can be added to both the sash, the parting bead, and staff bead. According to Historic England, this relatively low cost retrofit can reduce draughts by up to 80%[9].

[8] Modifying Historic Windows as Part of Retrofitting Energy-Saving Measures | Historic England
[9] Traditional Windows: their care, repair and upgrading

Secondary Glazing

The use of secondary glazing will allow the appearance and originality of the windows to be retained. Secondary glazing, if well installed and to the correct specification, will provide thermal efficiency to the equivalent of a PVCu double glazed window.[10] Historic England research has shown heat losses can be reduced by over 60% by using secondary glazing with a low emissivity (Low-E) hard coating facing the outside, along with other benefits including being highly effective at reducing noise[11].

Vacuum Glazing



This glazing is a form of double glazing but with only a 0.1mm gap between the two panes of glass, it can return efficiencies similar to 44mm Triple Glazing and is far superior in relation to double glazing. Some minor adaptation of the sash will be required, such as the rebate will need to increase in depth by approximately 4mm and the counterweights will need to be increased. Linseed oil putty can be used. This type of glass cannot be used on windows less than 200mm x 200mm or on stained glass or leaded light windows.

12mm 'Slimlite' Double Glazing

This type of double glazing can be retrofitted into existing sash windows. Some minor adaptions of the sash will be required, such as the rebate will need to increase in depth by approximately 8mm. The additional weight of the glass and separating frame will mean a significant increase in the counterweight required. Some models do not accept linseed oil putty and warranties are limited. 22mm and 28mm double glazed units, and 44mm triple glazed units cannot be used as they will not fit within the framing dimensions of a traditional sash window.

[10] https://historicengland.org.uk/images-books/publications/traditional-windows-care-repair-upgrading/heag039-traditional-windows-revfeb17/
[11] Energy Efficiency and Historic Buildings: Secondary glazing for windows | Historic England

Scenario 2: Works affecting existing modern timber windows

47. Some buildings in the Conservation Area have had good quality replacement timber windows installed, that successfully and faithfully replicate the features and detailing (in the majority of cases sliding-sash) of original windows, in terms of proportions, appearance, opening method and opening mechanism. However, other modern timber replacement windows may have only imitated certain features, or the style and overall appearance of the replacement is not satisfactory, for example a casement opening window in place of sliding sash. These will usually have been installed prior to the designation of the Conservation Area and are usually considered to be detrimental to the character of the Conservation Area.

48. The quality of the existing modern window, in terms of appearance, will be a significant factor in the approach the council will take in each individual case.

49. In the case of good quality, appropriately designed modern timber windows, then in accordance with Section 72 of the Planning (Listed Buildings and Conservation Areas) Act, the council will seek to preserve these windows as this form of window is considered to be a faithful reproduction of the original fitments that contributes to preserving the character and appearance of the conservation area. Where necessary, these windows can usually be retrofitted to improve energy efficiency in the same manner as a historic timber window (see previous page).

50. However, should a good quality timber window (in the majority of cases, this will be sliding sash) be in such a deteriorated condition as to require replacement, then a faithful, ‘like for like’, good quality timber reproduction is required in terms of proportion and dimension of framing members, appearance, opening method, opening mechanism and glazing bar pattern. Additional features such as modern glazing and draught proofing will be accepted if in accordance with the details outlined in the retrofitting section within scenario 1 above. Replacement of existing good quality, appropriately-designed modern timber windows with PVCu replacements will not be supported.

51. In the case of proposed replacement of a poor-quality modern timber window, i.e. one that is of inappropriate design, such as a casement window where the original would have been sliding-sash, or a sash window that is constructed with inappropriate proportions, appearance, or opening mechanisms, then in accordance with Section 72 of the Planning (Listed Buildings and Conservation Areas) Act, the council will look to enhance the character and appearance of the conservation area by seeking a well-designed, traditionally detailed, timber sliding sash window as the replacement.

52. In some circumstances, replacement of a poor-quality modern timber window with a PVCu sliding sash window will be considered, but the proposal must be consistent with other window materials and styles and detailing on the elevation on the property and the wider street scene. Significant justification should be given as to why a PVCu window is being proposed. Particular attention shall also be paid to the section sizing, siting and opening method of the PVCu replacement.

Scenario 3: Works affecting existing PVCu windows

53. The installation of casement and 'tilt and turn' style PVCu windows in the late twentieth and early twenty-first century has caused significant harm to the character and appearance of the conservation area, as a result of the chunky and cumbersome profiles and cross sections of the framing members, the flat appearance, and lack of reference to original design and the changed opening method.

Figure 6: Photo of inappropriate PVCu casement windows

54. In accordance with Section 72 of the Planning (Listed Buildings and Conservation Areas) Act, the council will seek to preserve and enhance the character and appearance of the conservation area. While the Council will permit replacement of these PVCu units with new PVCu windows, (though a well-designed timber replacement would always be encouraged and preferred), the replacement PVCu window must be a functioning sliding sash window of suitable appearance, proportions, sizing of framing members, and opening method. New 'tilt and turn' or casement PVCu windows will not be supported as this particular form of window fails to preserve and compounds the harm to the character and appearance of the conservation area.

Summary of Scenarios

55. To aid understanding, the following table summarises the scenarios discussed. Note however that each individual planning application proposal will be unique in terms of its detailed proposals and the existing context, and that each application will be determined in accordance with the adopted Local Plan and other material considerations.

Scenario	Repair	Retrofit energy efficiency	Timber replacement	PVCu replacement
1 – original timber window	Yes. This is supported. It is often the cheapest option. Planning permission normally not required[12].	Yes. This is supported. Draught excluders, secondary glazing, vacuum glass and slimline double glazing can be retrofitted. Planning permission normally not required	Only as a last resort if the existing window is in such a deteriorated condition (the planning application would need to demonstrate this). Replacement timber must meet the original design. Normally requires planning permission.	No. The introduction of PVCu would harm the character and appearance of the conservation area. Would require planning permission.
2 – good quality modern timber window (of traditional design)	Yes. This is supported. It is often the cheapest option. Planning permission normally not required.	Yes. This is supported. Draught excluders, secondary glazing, vacuum glass and slimline double glazing can be retrofitted. Planning permission not normally required	Only as a last resort if the existing window is in such a deteriorated condition (the planning application would need to demonstrate this). Replacement timber must meet the original design. Normally requires planning permission.	No. The introduction of PVCu would harm the character and appearance of the conservation area. Would require planning permission.

[12] It is recommended that a Lawful Development Certificate for a Proposed Development is applied for to formally confirm whether planning permission is required - Application for a Lawful Development Certificate – Rother District Council

Scenario	Repair	Retrofit energy efficiency	Timber replacement	PVCu replacement
2 - poor quality modern timber window (of non-traditional design)	While a replacement good quality timber window would be an enhancement, repair would preserve the conservation area. Planning permission normally not required.	Yes. This is supported. Draught excluders, secondary glazing, vacuum glass and slimline double glazing. Planning permission not normally required	Yes. Encouraged. A good quality modern timber window (a sliding-sash) would enhance the character and appearance of the conservation area. Normally requires planning permission.	A PVCu sliding sash window of sliding sash style and of appropriate design will be considered depending on the location and context, but significant justification as to why a PVCu window is appropriate will be required. Would require planning permission.
3 - PVCu	Repair often not possible.	Retrofitting often not possible.	Yes. Encouraged. A good quality modern timber window (a sliding-sash) would enhance the conservation area. Normally requires planning permission.	Yes. A replacement PVCu window where it is a sliding sash style and of appropriate design would enhance the conservation area. Would require planning permission.

Further Sources of Information

Pre-application advice

56. We encourage applicants to use our pre-application advice service for comments on proposals before a formal application is submitted. More information is available at: Pre-application advice – Rother District Council

Other advice

57. Historic England produce much useful advice available on their website, including these via the following links:
    - Energy Efficiency and Historic Buildings: Draught-proofing windows and doors
    - Energy Efficiency and Historic Buildings: Secondary glazing for windows
    - Traditional Windows: their care, repair and upgrading
    - Modifying Historic Windows as Part of Retrofitting Energy-Saving Measures
    - Research into the Thermal Performance of Traditional Windows: Timber sash windows
    - Heritage at Risk Conservation Areas
    - Heritage at Risk Conservation Areas Booklet

Appendix 1 - Environmental impact of PVCu windows

1. The interest in PVCu replacement windows often comes from a desire to improve energy efficiency and environment impact. However, in this regard it is important to consider the wider environmental impact of PVCu in each of three phases; production, use (longevity), and disposal. The use of timber carries significant environmental benefits over that of PVCu.

Production

2. PVCu is created from oil, through a chemical and industrial manufacturing process utilising approximately 4% of the total petrochemical industry's resource[13].

3. Timber is naturally grown, the period of growth is a significant period of time, usually between 40-150 years depending on the species[14], during that period the tree sequesters (takes out of the atmosphere) carbon dioxide and provides shade, cooling and habitats promoting bio-diversity. Harvesting of timber does cause some carbon generation but is low and schemes such as FSC ensures that felled trees are replaced and woodlands responsibly managed. [15] [16]

Longevity

4. The Buildings Research Establishment (BRE) concluded that PVCu windows have a typical life span of no more than 35 years. PVCu windows are also seldomly repairable in the event of failure leading to wholesale replacement and in turn increasing levels of waste.

5. Conversely, the Whole Life Analysis of timber, modified timber and aluminium-clad timber windows: Service Life Planning (SLP), Whole Life Costing (WLC) and Life Cycle Assessment (LCA) conducted by the Institute for Building and Urban Design concluded that a standard new timber window would have a life expectancy of 65 years, modified timber windows a life expectancy of 68 – 80 years, and Aluminium clad timber windows a life of 71 – 83 years. [17]

[13] https://asbp.org.uk/wp-content/uploads/2017/06/A-clear-choice-WWA_WWF-10.5.17.pdf

[14] https://www.forestryengland.uk/timber-uses-of-wood#:~:text=These%20trees%20take%20around%2040,they%20are%20ready%20to%20harvest.

[15] https://www.forestresearch.gov.uk/tools-and-resources/statistics/forestry-statistics/

[16] https://uk.fsc.org/

[17] https://pure.hw.ac.uk/ws/portalfiles/portal/4378394/Final_report_SLP_WLC_and_LCA.pdf

6. It should also be considered that if original windows are still present, they are now approximately 120 years old. The widespread use of heartwood as opposed to sap wood from slow grown, mature trees in previous periods is why the original windows have such good longevity.[18]

Disposal

7. Both the WWF and the Alliance for Sustainable Building Products (ASBP) have published significant studies regarding the environmental impacts of PVCu and the benefits of the use of timber. According to WWF, 83% of UPVC waste goes to landfill, and although can be recycled, that process is energy intensive and occurs in approximately 3% of disposed PVCu windows. [19] [20]

8. The recycling of timber is more widespread and leads to the production of manmade timber products such as OSB and MDF. However, timber is a natural material and will naturally decompose if sent to landfill which only occurs to 1% of the total timber disposed of in the UK.[21]

[18] https://historicengland.org.uk/advice/technical-advice/buildings/practical-building-conservation/

[19] https://www.wwf.org.uk/sites/default/files/2017-06/windows_0305.pdf

[20] https://asbp.org.uk/briefing-paper/whats-in-my-upvc-window

[21] https://www.trada.co.uk/media/12780/wis-2_3-59-recovering-and-minimising-waste-wood-150520.pdf

Appendix 2: Typical sash window construction