

## Summary

- Overall, we feel the proposed SPD is less onerous in terms of Listed Building Consent (LBC) compared with the previous version
- The guidance also appears to be significantly clearer and more user friendly than the previous SPD
- However, we feel that the guidance in terms of requiring planning permission/listed building consent for non-original windows, particularly on rear facades is overly onerous and will act as a barrier to homeowners reducing heat losses through their windows. We feel this policy is outdated by comparison with recent changes in government policy, and is incompatible with B&NES being able to meet its climate change targets, therefore would like it reworded to be more in favour of energy conservation and to reduce the barriers to upgrading the energy performance of our existing buildings
- We also feel there are a series of minor technical issues with the guidance

## Detail – Windows in listed buildings or conservation areas

### **SPD still overly favours fabric conservation over energy conservation and climate change**

Overall, we feel the guidance is too restrictive in favour of not being allowed to install more highly insulated glazing. The wording, as with the previous SPD, will discourage improvements in energy efficiency as evidenced by very few of the 5000+ listed buildings in Bath being upgraded in the last 10 years. Clearly there is a balancing act between energy conservation, maintaining historic fabric and the visual impact of such measures on our streetscape, but we feel the SPD in its current form will discourage energy efficiency upgrades, and make it more difficult for B&NES to mitigate climate change or meet its 2030 commitment to carbon neutrality.

We would like to draw the council's attention to the current government direction of travel, which is towards energy efficiency: the desire of Government to ensure historic buildings respond to the climate challenge is set out in Proposal 17 of the Government's draft Planning White Paper (2020) which makes recommendations for the reform of planning law and policy. It says:

*We [...] want to ensure our historic buildings play a central part in the renewal of our cities, towns and villages. Many will need to be adapted to changing uses and to respond to new challenges, such as mitigating and adapting to climate change. We particularly want to see more historical buildings have the right energy efficiency measures to support our zero carbon objectives. Key to this will be ensuring the planning consent framework is sufficiently responsive to sympathetic changes, and timely and informed decisions are made.*

<https://www.grosvenor.com/Grosvenor/files/d3/d30bd0b3-311d-44bb-82ff-fcd4924bd63c.pdf>

### **Clearer definition of 'historic' fabric/windows**

It doesn't make a distinction between for example original Georgian sash windows and Victorian and later replacements. We feel the SPD needs to clarify the term 'historic fabric' and limit it to original glazing, otherwise 'historic fabric' could be interpreted as something which was installed yesterday. We feel if the glazing is non-original then homeowners should be encouraged to install windows with higher levels of insulation e.g. slimline double glazing, secondary glazing, double and triple glazing.

## Original windows

Where original windows exist, the SPD should encourage secondary glazing without the need for planning permission/listed building consent, where existing fabric won't suffer damage and the work can be reversed if necessary. If any work doesn't damage the existing fabric, why is planning permission/listed building consent necessary? Lots of other work in listed buildings like installing kitchens and bathrooms which create much greater physical damage to fabric seem to be allowed without permission being required; why are conservation measures that cause less damage like improved glazing singled out to require permission from the council?

## Non-original windows

Homeowners should be encouraged to meet as high an energy conservation standard as possible:

- Slim-profile double glazing on front facades to match existing streetscapes
- Slim-profile double glazed, standard depth double or triple glazed sash windows should be allowed on rear facades, with a preference for higher performance 12mm+ gas double/triple glazing - energy conservation should be prioritised

We suggest replacing the existing wording with the following:

*"B&NES Council supports the careful replacement of windows with timber framed slimline double glazing if the existing windows are non-original or are historic but beyond repair. For non-original windows on rear or less-visible elevations the council supports the installation of higher performance timber framed double or triple glazing which matches the fenestration of surrounding buildings."*

## Minor technical issues with the guidance

There are specific technical issues with some of the guidance:

- **Chimney balloons:** Guidance on the use of chimney balloons to reduce draughts should be made clearer (and grammatically correct), it's important to maintain some airflow through the chimney over the course of the year, professional chimney balloon kits often have small holes in the middle to allow this. Removing them in the summer helps and fitting cowls to the top of the chimney to stop rain dripping down also helps
- **Draughtproofing of timber floors:** Based on Transition Bath's thermal imaging experience the impact of timber floor draughtproofing is likely to have Medium and not a Low impact. Products using neoprene strips work well to draught proof timber floors. Unfashionable carpet is better than exposed timber floor from both an insulation and draught proofing perspective. Care should be taken generally not to insulate below joists as it might increase the risk of damage from condensation – professional advice should be sought if you are planning on doing this
- **Insulating of timber floors:** Fullfill filling a timber floor if non-original is even more effective, but more disruptive i.e., a lower thermal conduction aggregates e.g. GEOCELL, then solid insulation then a concrete slab with underfloor heating for an ASHP
- **Full-fill suspended floors:** Insulating solid floors: the same approach can be used to replace suspended timber floors, using insulating aggregate e.g. GEOCELL to level the space and with care airbricks can be blocked to stop draughts, however services – electrics, central heating pipes etc. may need to be carefully placed in the insulating layer, and insulating internal 'upstand' around external perimeter is also a good idea, concrete or limecrete slab with under floor heating should also be considered, UHF works will with ASHP/GSHP
- **Insulating of underfloor pipework:** Underfloor pipework should be insulated when underfloor installation is installed and might have a bigger saving, particularly if floors are already carpeted.
- **Solar PV and car charging:** In addition to making use of low cost, lower carbon electricity out of peak hours for EV charging, if you have solar PV select a charger which charges your car when you might otherwise be exporting electricity to the national grid



- **Woodburners are better than open fires:** Guidance on open fires and register plates should recommend installation of woodburners which are typically 80% efficient versus open fires' 20% efficiency, and burn cleaner releasing fewer pollutants, but with generally counselling against burning solid in urban environments because of air pollution, and reference modern EU Ecodesign standards and that some wood burners now come with catalytic converters to reduce pollution further
- **Secondary glazing:** perhaps more emphasis of their seasonal use to reduce condensation between the windowpanes and aid in summer ventilation to reduce overheating might improve the advice?
- **Triple glazing:** poor triple glazing as provided by some of the national window suppliers can provide less insulation and less solar gain than better quality double glazing. If you are comparing quotes between different types ask the supplier for the whole window 'U Value' – the lower the value, the lower the heat loss. If you are on a noisy road, ask the installer about their sound insulation properties, often the bigger the gap the better the sound insulation, however too big a gap and the thermal performance reduces
- **Cavity wall insulation:** carbon poly beads typically provide better insulation than blown fibre, fill the gas better, are generally better in damp situations and are less likely to suffer 'slump' in the long term. Discuss with your installers what type of insulation they are going to install; some only specialise in 1 type so you may not get a balanced opinion
- **Internal wall insulation:** typically, professional advice should be sought before installation to minimise the risk of damp build-up
- **Material used for wall insulation:** Not entirely convinced about the 'desire' for natural materials for external wall insulation as solid wall insulation provides up to 2 times better insulation for the same thickness, is a more common approach, can be installed cheaper, and typically the risks of condensation are significantly lower than for internal wall insulation, hemp fibre, wool and cellulose are all suspectable to long term slump – this contrary advice is most pertinent for non-heritage buildings
- **Solar thermal v. solar PV:** we are not convinced solar thermal has greater payback than solar PV. Solar thermal has high maintenance costs compared with solar PV, less utility – only really contribute to hot water, can't be installed over a large area, require a HW cylinder, and solar PV can be used to heat hot water with a diverter. However, solar thermal currently benefits from the government RHI subsidy whereas solar PV has no subsidies, but a small amount of income can be derived from exporting electricity (SEG) however installing a battery system at the same time may work out a better choice
- **Solar planning permission:** We think solar PV planning permission is also required within conservation areas and the WHS? We feel in general this advice is out of date with respect to PV and batteries as batteries are not mentioned and now, we suspect the majority of installations outside large new building developments include battery storage systems, which has a cost saving if not a carbon saving benefit; future proofing of this advice might include making use of future solar to vehicle to grid technology to electricity storage?
- **Heat pumps:** the wording on microbore could be better, it does work with heat pumps, but careful consideration is required, perhaps more powerful pumps, or multiple zoned pumps, plus a buffer tank might suffice? Reference should be made to RHI or similar subsidies for heat pumps which typically cover between 50% and 100% of the cost, although rumoured fixed grants of £7,000 might soon replace RHI?
- **ASHP wording:** We think the wording for ASHP's "can be three or four times higher" would be more effective written as "300% to 400% more efficient and more importantly carbon efficient" – ASHPs are the single most effective and least disruptive of reducing a building's carbon emissions by 50% to 75% today and by up to 90% as the grid decarbonises over the next 10 years – we think this should be given much greater prominence within the document as almost all the other measures perhaps with the exception of solar PV and external wall insulation only have small incremental impacts? MCI qualified installers are recommended not only because they are required for the RHI subsidy but to ensure a satisfactory installation. We are not sure people should be encouraged to install them for cooling, it's a specific exclusion of RHI installations although they can be reconfigured to provide after certified installation. I think like the more technical advice on glazing with U values, advice on asking installers about flow temperatures would be useful, we have seen many installers, in order to

be more cost competitive offer 55C+ flow temperatures to reduce radiator costs, which is a false saving as COPs are often only 2.2, compared with 40C/45C larger radiator COPs of 3.5, and UHF of 4.2+.

- **MVHR:** can be disruptive because of the need to install (insulated) ductwork in ceiling voids. LBC: some vents can be very discreet? Care needs to be taken if installed outside the thermal envelope of the home e.g., roof space for the unit and ductwork to be thermally insulated as condensation can be a risk, generally wouldn't advise unless air permeability between ~5.0 m<sup>2</sup>/m<sup>3</sup>/hr or ACH @ 50Pa. Transition Bath has a commercial blower door if Bath residents need help in determining this.
- **Formatting issue:** P94-96 – the title is wrong ‘Building and Heating Controls’ – then talks about Rainwater and Greywater recycling, and then something about heat pumps and gas boiler CO<sub>2</sub> emissions on the pdf version of the SPD – think there is a reformatting issue!!!!!! Greywater systems can have maintenance issues. The same information is then repeated on p97
- **No heating control advice:** Heating controls and zoning appears be particularly missing from this advice?????? Modern TRV based wireless zoning can be a particularly cheap solution to varying the heating in different parts of the house at different times of the day.
- **Installing LEDs a priority:** Replacing halogen lighting with LEDs seems to have limited prominence in the main report, but experience in Bath with some houses having up to 100 halogen downlighters (!) suggests their replacement is probably more critical than any of the other measures
- **Edible planting:** Land use and ecology, perhaps should encourage local vegetable growing and fruit trees?
- **Siting and orientation:** p105 seems slightly incompatible with the Local Plan in suggesting solar panels might not be considered? Perhaps should include the siting of EV charging points?
- **Images don't match captions:** P114: it would be better if the images matched the captions below?