TAN 11 Call for Evidence Consultation Response Form

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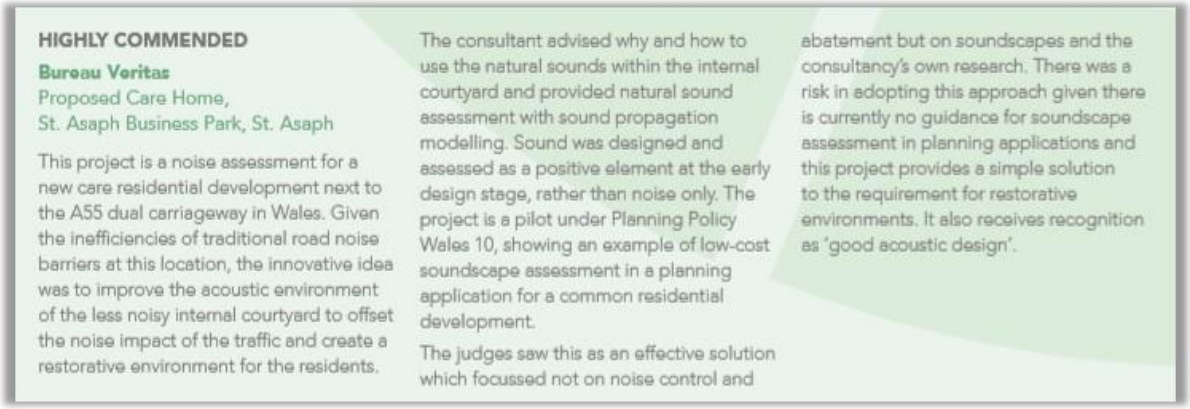
Effective strategic action through development plans

1. **Please provide examples of good practice in Wales or elsewhere where air quality and/or soundscape have formed a part of developing plan strategies for the location of new development or facilitating a placemaking approach as part of plan making;**

   Considering the external Soundscape rather than internal, an example of good practice was illustrated by one of the winning entries of the Association of Noise Consultants awards in 2019:



HIGHLY COMMENDED

Bureau Veritas

Proposed Care Home,
St. Asaph Business Park, St. Asaph

This project is a noise assessment for a new care residential development next to the A55 dual carriageway in Wales. Given the inefficiencies of traditional road noise barriers at this location, the innovative idea was to improve the acoustic environment of the less noisy internal courtyard to offset the noise impact of the traffic and create a restorative environment for the residents.

The consultant advised why and how to use the natural sounds within the internal courtyard and provided natural sound assessment with sound propagation modelling. Sound was designed and assessed as a positive element at the early design stage, rather than noise only. The project is a pilot under Planning Policy Wales 10, showing an example of low-cost soundscape assessment in a planning application for a common residential development.

The judges saw this as an effective solution which focussed not on noise control and abatement but on soundscapes and the consultancy's own research. There was a risk in adopting this approach given there is currently no guidance for soundscape assessment in planning applications and this project provides a simple solution to the requirement for restorative environments. It also receives recognition as 'good acoustic design'.

   The winner, Bureau Veritas, embraced the Welsh Government's Noise and Soundscape Action Plan 2018-2023 and Planning Policy Wales edition 10, under WFG Act 2015. They pointed out however that, there is currently no guidance for soundscape assessment in a planning application, as this was the first inclusion of the principle of soundscape in government planning policy in the UK.

   Their winning project was a noise assessment for a new care residential development next to the A55 dual carriageway in Wales. Given the inefficiencies of traditional road noise barriers at this location, their innovative idea was to improve the acoustic environment of the less noisy internal courtyard to offset the noise impact of the traffic and create a restorative environment for the residents. They also acknowledged that the holistic soundscape assessment borrowed from research methodology or soundscape ISOs would be too demanding for most planning applications and excessively expensive. Good practice and examples are in a desperate demand. Sound was designed and assessed as a positive element at the

early design stage, rather than noise only. The project is pilot under PPW 10, showing an example of low-cost soundscape assessment in a planning application for a common residential development, which may inspire the decision-makers and acousticians.

2. **Please provide examples of good practice in Wales or elsewhere where wider mitigation solutions have been developed to reduce air and noise pollution and/or avoid exacerbating existing air quality or soundscape problems as part of developing strategies for the location of new development or in facilitating a placemaking approach;**

   50mph Speed limits on busy sections of Motorways next to residential development should have given a reduction in traffic noise as well as air pollution, as well as potentially improving traffic flow & safety at peak times. I am not aware whether this has been confirmed however?
   One of our members which is a resident of Port Talbot, has noted a significant improvement of air quality/reduced pollution levels from the steel works over the past 50 years (and possibly noise?).

3. **Please provide views on the nature and scope of air quality and soundscape information and/or evidence required to support effective plan making;**

   Guidance on the information likely to be required is being collated in the BS 12913 series which deals with appropriate "Descriptors and Indicators". The context of the development is also important, and BS 12913 considers two very different soundscapes - tranquillity and vibrancy - which could be appropriate depending on the setting.

   We would expect that source noise data for natural sound masking, such as fountains/water features, would be required to carry out assessments at design stage. The industry could be encouraged to carry out these tests as this represents a potentially significant sales opportunity.

   Guidance on the level of neutral masking noise that shows an overall benefit to residents in their gardens is required, covering;

   i) The level relative to the level of 'noise' it is designed to mask, and
   ii) The absolute level.

   The acoustic factors which we would expect to affect perceptions of tranquillity are:
   - *The relative balance of natural and man-made sounds;*
   - *The proportion of time when one can only hear natural sounds;*
   - *The level of sound from road and rail sources; and*
   - *The overall level of sound.*

These factors can be combined to provide a prediction of likely tranquillity (or lack of tranquillity) at a location.

4. **Please provide views on how evidence and/or information relating to air quality and soundscape should be used alongside other evidence necessary to support effective plan making and how this evidence could be used in an integrated way to facilitate better placemaking outcomes;**

   People's perceptions of tranquillity at a place have been found to be influenced by a number of factors, as follows:

   - *Sound – the levels and types of sounds present*
   - *State of mind, personal factors and feelings about a place*
   - *The sound character of the surrounding area*
   - *Expectations about a site*
   - *Appearance (including consideration of landscape)*
   - *Presence of odours*
   - *Presence of insects*
   - *Presence of water (river, lake, waterfall, fountain, sea)*
   - *Presence and behaviour of other people*
   - *Presence of somewhere to sit or rest*
   - *The weather*

   However, it is possible to assess the relative tranquillity of a location quite reliably using only information about sound level and character.

5. **Please provide any further detailed guidance and support in relation to air quality and soundscape which would be beneficial to support effective plan making and which is not covered by 1)-4) above.**

   In order to succeed any guidance needs to give EHO's/planners specific guidance to avoid falling back on the safest acoustic solution that may not be attractive to planners, developers or future users of the scheme/space. Using soundscapes is about creating an appropriate noise environment, rather than aiming to suppress noise as much as possible.

   Direct guidance should therefore be included in the document allowing glazing to habitable rooms on residential facades facing reasonable industrial areas and/or roads, provided adequate ventilation is provided. (Requirements of the AVO Guidance could be included).

   In this way we can avoid single aspect development which is one interpretation of Soundscape guidance. Single aspect development creates ghettos, security risks for people walking/cycling to/from work along routes that are not overlooked. Worst case, we may create buildings which do not look over green spaces which are incorporated as a "noise buffer zone" between industrial sources and residential facades/gardens. This removes an important aspect of the soundscape - the visual one - and can result in other unintended consequences such as potentially creating a security risk for children playing if they cannot be directly observed from their dwellings.

Direct guidance to LA's is required confirming that the guidance given in BS4142 needs to be used as part of a wider assessment of absolute noise levels and context, and we should not take choice away from residents who may wish to open a window facing an industrial source - even if they then complain about hearing a reasonable level of industrial noise - so long as a suitable alternative means of ventilation have been incorporated into the residential design. At the moment, EHO's often refer to case law that apparently indicates this cannot be taken into consideration, despite the fact the latest BS4142 2014 indicates it can.

It is important to give Local Authorities clear guidance on all these issues, otherwise we risk single aspect development or "noise masking" being presented as a "cure all".

Development proposals and development management

6. **Please provide examples of good planning practice guidance in Wales or elsewhere aimed at reducing, avoiding or minimising the impacts of airborne pollution;**

7. **Please provide examples of good practice in Wales or elsewhere where design has been effectively used to reduce, avoid or minimise the impacts of airborne pollution;**

8. **Please provide examples of successful mitigation being secured as part of planning applications and being effectively implemented;**

   Numerous TAN 11 road/rail noise assessments where screening has been used to reduce noise impact at the residences/in gardens.

9. **Please provide information and/or views on the nature and scope of air quality and soundscape information and/or evidence required to support effective decision making on planning applications;**

   A significant amount of Research has and is being done in this area which needs to be brought together (hopefully in the BS) such as:

   Project DeStress, by Heriott Watt University:
   https://destress.hw.ac.uk/

   "The Urban Soundscapes of the World" project:
   http://urban-soundscapes.org/ designed to set the scope for a standard on immersive recording and reproducing urban acoustic environments with soundscape in mind. The project is by ASAsense and Ghent University, and is funded by the HEAD Genuit Foundation." Dick Bottledooren

   Positive Soundscapes Project:
   https://www.salford.ac.uk/research/sirc/research-groups/acoustics/psychoacoustics/positive-soundscapes-project

https://tranquilcity.co.uk/ - a project exploring our relationship with tranquillity in the urban environment to promote health, wellbeing and balance

The issue is also explored by Jian Kang in his book 'Urban sound environment' (which is available as a free download)

In relation to tranquillity, the book "Tranquil Spaces, measuring the tranquillity of public spaces" by Clive Bentley provides details of the Natural Tranquillity Method. This method provides a way for the tranquillity at a location to be assessed in a repeatable, objective manner so can be used by planning professionals and designers when considering how tranquil a place is and the extent to which development proposals would be likely to affect tranquillity. https://naturaltranquillity.com/about-us/natural-tranquillity/

10. **Please provide any information and thoughts on barriers, perceived or practical, to achieving better design outcomes and effective mitigation;**

A significant barrier to this novel approach is that people do not understand it. LA's in particular may worry that this is a backdoor method for allowing development in unacceptably noisy locations. All advice and guidance must therefore be supported by good solid research and training will be needed on how to interpret the data. Visits to examples of the successful use of soundscapes, such as the award winning scheme referred to in Q1 above, would also be highly beneficial.

One of the main issues with the current TAN 11 is that it indicates 'Planning permission should be refused' for NEC C sites, which is impractical for urban locations and sites near the main strategic transportation network. This has led to this advice largely being ignored in favour of conditions utilising screening, sound insulation at the façade and mechanical ventilation giving residents the option to keep windows closed while maintaining fresh air levels. It has also been interpreted as a blunt tool in that it has tended to be used to define absolute levels, where some flexibility based on the context of the local area could be useful.

The advice in TAN 11 relating to 'mixed source' sites tends to be met with resistance by EHO's as they are concerned a BS4142 assessment may result in a complaint being upheld, regardless of the otherwise prevailing average traffic noise level. This is an area where Government could highlight the change in interpretation indicated in the latest BS4142 2014 guidance, which indicates sound insulation at the façade can be taken into consideration when assessing complaints. At the moment EHO's refer to old case law, probably from before 2014, indicating it cannot. This may be an area where the use of soundscape could neutralise the mechanical source at the receiver?

11. **Please provide any further detailed guidance and support in relation to air quality and soundscape which would be beneficial to support better**

placemaking outcomes through development management which is not covered by 6)-10) above.

Guidance needs to be included as to how EHO's can negotiate with existing industrial/commercial operators where there is the potential for the residential developer to pay for attenuation measures at the source. Where the noise generator takes a positive attitude, this can be a useful tool, however they often see it as an opportunity to get money out of the developer. We have suggested EHO's explain to the noise generator that, in spite of them being there first, if in the view of the EHO they are being unreasonable in allowing levels to be treated at source, that could count against them if the EHO has to investigate a complaint in the future.

One option in relation to night clubs and bars could be to limit source music levels in their clubs to specific limits (both in terms of dBA and at the 31.5, 63 & 125Hz octave bands). This would have the dual effect of reducing young people's exposure to excessive noise levels/hearing damage and reducing noise break-out blighting neighbouring sites. At the moment clubs/bars say if they turn the music down, "people will go down the road" but if this is enforced for every club/bar then they will all be on the same footing.

Question 12: We would like to know your views on the effects that any information provided would have on the Welsh language, specifically on opportunities for people to use Welsh and on treating the Welsh language no less favourably than English.

What effects do you think there would be? How could positive effects be increased, or negative effects be mitigated?

Question 13: We have asked a number of specific questions. If you have any related issues which we have not specifically addressed, please use this space to report them:

Please enter here:

Responses to consultations are likely to be made public, on the internet or in a report. If you would prefer your response to remain anonymous, please tick here: