

Background

1. I comment as a structural engineer who has a strong interest in historic structures and has been involved as a consultant in their assessment, conservation and re-use over several decades.

Content of Guidance Notes

2. I have looked only at the August 2009 draft Guidance Note on Engineering Structures.

In general, I consider that it presents advice in a clear and consistent manner.

I would however urge that the Note should make clear that buildings are often intrinsically historic engineering structures in their own right. I am thinking e.g. of early cast iron, wrought iron, steel, and reinforced concrete structures incorporated in mills, factories, warehouses, railway stations, etc.

I have also a few detailed comments that I attach below after 4.

Layout of Guidance Notes

3. I consider that the draft Engineering Structures Guidance Note:
 - Is easy to read
 - Is accessible (which I take to mean that its language is straightforward and free of jargon or obscure technical terms)
 - Contains images that are generally appropriate for the issues they illustrate.

Future Guidance Notes

4.
 - I suggest that a Guidance Note should address (External) Doors, which also significantly contribute to the external character of buildings and structures – this could perhaps be included with the Windows Note.
 - Consideration could be given to a general Guidance Note that addressed the lifetime care of historic buildings and structures, considering topics such as conservation plans, documentation before and after interventions, maintenance, etc.

Detailed Comments on the draft Engineering Structures Guidance Note

1. Page 2, point 2 – add second sentence “This is likely to require the involvement of structural engineers and [often] others with relevant experience of dealing with such structures.” Reason for comment – to emphasise the need for experienced practitioners to be involved.
2. Page 2, point 4 – to read “Existing materials should be replaced only where essential to structural stability or other safety-related issues, and where the consequences of that intervention are understood. In general, existing material should be retained and augmented, rather than replaced, by new construction where stability or other safety-

related issues are of concern.” Reasons for comment – (1) to acknowledge that personal safety-related matters such as under-height / under-strength bridge parapets may need to be addressed (as well as structural stability), while (2) making clear that the conservation principles of ‘conserve as found’ and minimal intervention should be followed.

It might be preferable to split the two sentences into two points.

3. Page 2, point 5 – to read “Where new construction is the only realistic course, the old structure should be retained for possible new use, such as by pedestrians and cyclists.” Reason for comment – to maintain the advisory, rather than peremptory, tone of the previous points.
4. Page 2, point 7 – to begin “Local authorities should give advice ...”. Reason for comment – as for 3. above.
5. Page 3, ‘Why are Historic Structures Important?’:
 - this could embrace buildings as potentially historic structures (as my comment on ‘Content of Guidance Notes’ above)
 - suggest add tunnels as a further specific form of historic structure alongside bridges, etc, etc.
6. Page 3, annotated photograph of stone arch bridge at foot of page – I query whether the annotation of bridge parts is appropriate in this Guidance Note. Picking up from my comments above, perhaps a photograph of a railway tunnel portal or an early cast iron building frame might offer a complementary illustration instead.
7. Page 4 – while stone is very widely used for structural masonry in Scotland, and is therefore rightly given prominence in the Guidance Note, I suggest that mention might also be made here of brickwork, the other important structural material currently not referred to on this page.

No further comments.

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