

**Code of Practice for the Specification for the  
Reinstatement of Openings in Roads**

January 2014

# **New Roads and Street Works Act 1991**

## **The Code of Practice for the Specification for the Reinstatement of Openings in Roads**

### **Consultation Analysis Report**

January 2014



— THE OFFICE OF —  
THE SCOTTISH  
ROAD WORKS  
COMMISSIONER



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## **1. Acknowledgements**

Transport Scotland would like to take this opportunity to thank all those who have contributed to the consultation including members of the Specification for the Reinstatement of Openings in Roads Working Group.

## **2. Background**

The consultation on The Code of Practice for the Specification for the Reinstatement of Openings in Roads was published by Transport Scotland on 13 July 2012 and ran until 12 October 2012. The publishing of this analysis report has been delayed by a number of factors, particularly the highly technical nature of the Specification itself. The working group found that the issue of Hydraulically Bound Mixtures was contentious and required specialist technical advice to be sought. Consequently, disagreement within the working group meant the co-chairs of the group took responsibility for completing the Specification. This resulted in the time taken to complete the Specification being substantially extended.

A RAUC(S) Working Group – co-chaired by a representative from a roads authority and an undertaker – has reviewed and re-drafted the existing Specification for the Reinstatement of Openings in Roads over the past 15 months which included the following process:

- reviewing the Department for Transport's Specification for the Reinstatement of Openings in Highways Draft (Third Edition);
- amending any English references, in particular any references made to sections of the New Roads and Street Works Act 1991 that apply to England by inserting the equivalent Scottish provision;
- considering options to develop and include current local agreements related to materials and specifications; and
- reviewing the technical specifications and decide whether these are appropriate for Scotland.

## **3. Consultation Process**

The relevant documents were placed on the consultation section of the Transport Scotland website. It was also published as a news item on the Scottish Road Works Commissioner's (SRWC) website.

In addition, the SRWC sent details of the consultation to 300+ individuals from the organisations that comprise the Scottish road works community. The SRWC handled the responses on behalf of Transport Scotland, reconvened the working group to consider the response, provide administrative assistance in analysing the responses and took responsibility for drafting this analysis report. The consultation distribution list is contained in Annex B.

#### **4. Responses**

A total of 32 responses were received. The respondent list is contained in Annex C. The category of organisation that provided the greatest number of responses was road works authorities, then utility companies and other organisations.

#### **5. Analysis**

This report analyses the consultation responses following consideration by the working group responsible. Each response received was entered on to a spreadsheet to record the respondents' answers to the question. Totals for respondents were calculated, detailing who agreed, disagreed or did not indicate a clear preference for/against each proposal and the figures used to demonstrate the balance of opinion on each proposal.

Where respondents did not agree with the proposal, they were invited to explain their views as part of the consultation question. The next stage was to analyse the reasons respondents gave. Where relevant, reasons for opposition were totalled in order to understand the most common objections. These were discussed by the working group and a firm decision was made on whether the proposal should stand or be subject to amendment in light of the objection. Where a decision could not be taken due to a lack of understanding of the technical issues, the working group sought expert advice.

## 6. Report Summary

The consultation paper set out a series of issues identifying those areas within the Specification where significant changes had been made and where views were sought. The specific consultation questions were arranged to align with the order of the Specification. **The following sets out the key questions, the general response to the consultation exercise given and the outcome of the deliberations of the working group convened to consider the response:**

### S1.2 Guarantee Period

The working group considered extending the current guarantee period of two years, or three years in the case of deep openings from completion of a permanent reinstatement but concluded that they did not have sufficient evidence to make a recommendation. However, given that road reinstatements are expected to have a service life of 20 years or more, it is suggested that the guarantee periods could be increased. It has been suggested that a 5 or 6 year period might be appropriate.

However, before coming to any decision the Scottish Government would welcome evidence from roads authorities relating to undertaker reinstatements which have passed their inspections at the end of the 2 and 3 year guarantee periods but which subsequently failed within the next 3 years and would have been within a 5 to 6 year guarantee period.

### Views Sought

- |    |   |
|----|---|
| 1. | <b>Do you consider that the guarantee periods should be extended?<br/>If yes, please explain why and provide evidence to support your view.</b> |
|----|---|

### Working Group Response

21 of the 29 respondents to this question agreed that the guarantee periods should be extended. All of the roads authorities responses considered that guarantee periods should be increased. All of the utility companies and contractors which responded considered that they should not.

The guarantee period in the code relates to surface profile and depression defects. Other defect types are generally not covered by the guarantee period and are not time barred. To clarify the position the working group suggests inserting the following wording into the code:

*“Note: Where it is discovered at any time that a reinstatement has not been constructed to specification i.e. is not to the minimum depth, does not meet the air voids requirement or is the wrong material (normally identified following coring) then the undertaker will be deemed not to have met its obligations*

*under section 130 of the New Roads and Street Works Act 1991. In such a situation the undertaker remains liable even after the end of the guarantee period.”*

This has been incorporated at S2.2.5. The working group felt that the note above would clarify the position for many roads authorities and go some way to meet their concerns.

The working group recommends that further research be undertaken into the nature of certain defects which occur in the longer term and that the guarantee periods should remain as they are.

### **S2.6 Skid Resistance**

The changes in the Specification take into account the latest advice from the DfT in respect of the required skid resistance within various road types, and have resulted in the table of values for reinstatements being amended to reflect the change. The DfT guidance that has led to this change is:

Design manual for Roads and Bridges: Volumes 7 Pavement design and maintenance Section 3 Pavement Maintenance Assessment Part 1: HD 28/04 Skid Resistance

### **Views Sought**

- |           |  |
|-----------|--|
| <b>2.</b> | <b>Are the requirements of the amended table clear?<br/>If not, please suggest improvements.</b> |
|-----------|--|

### **Working Group Response**

The vast majority of respondents (22 of 27) confirmed that the table is clear.

Five roads authorities responded 'No', but were commenting on the actual values within the table which they considered had been set too low. The working group considered this view but decided that the values in the table were appropriate.

It is anticipated that where local quarries are producing material with a higher value that this was generally being used.

The working group recommends that the wording in the draft consultation version of the Specification be adopted.

### **S3.5 Drainage and Water Related Matters**

Changes have been made to S3.5, S11.4 and NG11.4.2 in relation to drainage and water. These introduce clearer guidance when water is detected at any stage in the construction or reinstatement process. Quick intervention removes the likelihood of greater problems at a later date.

<b>Views Sought</b>	
<b>3.</b>	<p><b>Are the new guidelines for dealing with water clear and will they work?</b></p> <p><b>If not, please describe why and provide all the necessary supporting evidence.</b></p>

<b>Working Group Response</b>
<p>Of the 29 respondents to this question, a majority of 17 did not agree that the new guidelines were clear.</p> <p>The working group reviewed the guidelines and decided that new clause 11.4.1(4) should be deleted.</p>

<p><b>S6.5.1 Base Preparation</b></p> <p>The introduction of tack coat or bond coat is required in all circumstances.</p>
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<b>Views Sought</b>	
<b>4.</b>	<p><b>Do you agree that this is good practice?</b></p> <p><b>If not, please describe why and provide all the necessary supporting evidence.</b></p>

<b>Working Group Response</b>
<p>27 of the 29 respondents to this question agreed that the introduction of tack coat or bond coat is required in all circumstances.</p> <p>The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p><b>S6.5.2.1 Edge Regularity</b></p> <p>This section provides guidance on the shape of the reinstatement to ensure that adequate compaction can be achieved. This has been updated so that the reinstatement can be constructed with no loss of performance. There is also an additional diagram to provide guidance on longer trench openings.</p>
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<b>Views Sought</b>
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5a.	<p><b>Do you agree that this change will facilitate better methods of working?</b></p> <p><b>If not, please describe why and provide all the necessary supporting evidence.</b></p>
5b.	<p><b>Do you agree that this method will improve the quality of reinstatements?</b></p> <p><b>If not, please describe why and provide all the necessary supporting evidence.</b></p>

<b>Working Group Response</b>	
<p>28 out of 29 respondents agreed to the new diagrams whilst 21 of the 28 agreed that this method will improve the quality of reinstatements.</p> <p>The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>	

**S6.5.2.2 Edge Sealing**

The revised code of practice strengthens the requirements for edge treatment to ensure a better performing sealed joint. It is a requirement to seal the vertical faces of the reinstatement as it offers better protection against water ingress. Best practice examples have been provided.

<b>Views Sought</b>	
6.	<p><b>Do you agree that this method will enhance the performance of the reinstatement and reduce water ingress?</b></p> <p><b>If not, please describe why and provide all the necessary supporting evidence.</b></p>

<b>Working Group Response</b>	
<p>25 of the 29 respondents to this question agreed that this method will enhance the performance of the reinstatement and reduce water ingress.</p> <p>The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>	

**S6.5.2.3 Proximity to Road Edges and other Fixed Features**

Changes have been made to the requirements for the edge preparation of

excavations.

### Views Sought

7a.	<b>Do you agree with the change of the proximity rule? If not, please describe why and provide all the necessary supporting evidence.</b>
7b.	<b>Do you agree this will reduce the amount of cut back and edge preparation? If not, please describe why and provide all the necessary supporting evidence.</b>

### Working Group Response

All 29 respondents agreed with the change of the proximity rule whilst 21 considered that this will reduce the amount of cut back and edge preparation. The working group recommends that the wording in the draft consultation version of the Code be adopted.

### S6.5.2.5 Stepped Joints

This provides updated guidance for the most heavily trafficked roads i.e. type 0 and 1 on how to provide a cutback, which is a step in the upper bound road layers. Unless a joint is properly formed, it becomes a potential water penetration point.

### Views Sought

8a.	<b>Will this method provide an adequate seal to prevent water ingress? If not, please describe why and provide all the necessary supporting evidence.</b>
8b.	<b>Are there any potential problems with the cutback? If yes, please describe why and provide all the necessary supporting evidence.</b>

<b>Working Group Response</b>	
8a.	<p>All utility companies and contractors responded 'No' citing lack of evidence or that painting of the vertical joint is adequate.</p> <p>Ten roads authorities responded 'No', however, they were generally seeking a wider step and an increase in the classes of road to which it would apply.</p> <p>The working group considered the representations made in response to these questions, but remains of the view that a 75mm step is appropriate. The group also came to the view that type 2 roads should be included and the wording in the Code has been adjusted accordingly. This aligns with the requirements of the DMRB for maintenance.</p>
8b.	<p>15 of the 28 respondents to this question considered that there would be problems with the cutback.</p> <p>The view expressed by utilities and contractors was that there is potential for delamination, that water ingress into a horizontal joint could make matters worse and that a bevelled joint should be considered.</p> <p>The roads authorities which foresaw problems, were actually suggesting a 150mm step or that all reinstatements be subject to a step joint.</p>

**S8.3.1 and 8.3.5 Match of surface materials in high amenity areas**

Most road authorities have areas designated as high-amenity where high quality surface materials have been laid and maintained to a high standard e.g. shopping areas, tourist attractions and areas of historical significance. If works take place in those roads the undertaker must reinstate to the same maintenance standard.

This addition reinforces current practice and formalises it in respect of the Code of Practice.

<b>Views Sought</b>	
9a.	<p><b>Do you agree that this method reinforces current practice being undertaken?</b></p> <p><b>If not, please describe why and provide all the necessary supporting evidence.</b></p>
9b.	<p><b>Do you agree that this method will enhance the performance of the reinstatement?</b></p> <p><b>If not, please describe why and provide all the necessary supporting evidence.</b></p>

**Working Group Response**

9a. 28 of the 29 respondents to this question agreed that this method reinforces current practice being undertaken.

9b. 18 of the 27 respondents to this question agreed that this method will enhance the performance of the reinstatement, although there were some dissenting views expressed.  
  
These views were considered by the working group which recommends that the wording in the draft consultation version of the Code be adopted.

**S9 Verges and Unmade Ground**

Figure S9.1 provides clarification of the treatment to reinstatements where they are placed in verges at a short distance from the road edge, and highlights the need to strengthen the reinstatement to accommodate the thrust from wheel loading.

**Views Sought**

10. **Do you agree that this method formalises current practice being undertaken?**  
  
**If not, please describe why and provide all the necessary supporting evidence.**

**Working Group Response**

28 of the 29 respondents to this question agreed that this method formalises best practice being undertaken.  
  
The working group recommends that the wording in the draft consultation version of the Code be adopted.

**S11.1 Road Markings**

Changes have been made in the document, which include road markings as part of the permanent reinstatement.

**Views Sought**

11. **Do you agree with this change?**  
  
**If no, please describe why and provide all the necessary supporting evidence.**

<b>Working Group Response</b>	
<p>20 of the 28 respondents to this question agreed that road markings be treated as part of the permanent reinstatement.</p> <p>For the majority of roads authorities which did not agree, the main issues were:</p> <ul style="list-style-type: none"> <li>• the marking having an extended guarantee period if the guarantee were extended; and</li> <li>• the status of the reinstatement during the 15 day period during which permanent markings can be applied.</li> </ul> <p>As the working group recommendation is that the guarantee periods remain the same, there is no change regarding the life expectancy of markings. As regards the status of reinstatements during the 15 day period, the Co-ordination Code makes it clear that these should be treated as "interim".</p> <p>The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>	

**S11.5 Ironwork and Apparatus**

Guidance and advice is provided for reinstatements adjacent to manhole covers and frames. Preferred reinstatement methods and construction have been introduced which remove uncertainty.

<b>Views Sought</b>	
<b>12a.</b>	<p><b>Do you agree that this method formalises best practice being undertaken?</b></p> <p><b>If not, please describe why and provide all the necessary supporting evidence.</b></p>
<b>12b.</b>	<p><b>Does the new guidance improve the working methods and material selection to improve reinstatements around manhole covers?</b></p> <p><b>If not, please describe why and provide all the necessary supporting evidence.</b></p>

<b>Working Group Response</b>	
<b>12a.</b>	<p>23 of the 29 respondents to this question agreed that the advice for reinstatements adjacent to manholes covers and frames formalises best practice.</p> <p>The working group recommends that the wording in the draft consultation version of the Code be adopted subject to a small wording clarification.</p>

12b.	<p>17 of the 26 respondents to this question agreed that the new guidance improved the working methods and material selection to improve reinstatements around manhole covers.</p> <p>The working group agrees that the construction details of manholes covers and frames are for the undertaker to determine to meet its obligations under section 140 of the New Roads and Street Works Act 1991.</p>
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**A2.4.1 Permanent Cold-Lay Surfacing Materials (PCSMs)**  
 Changes have been made to the permitted use of PCSMs.

<b>Views Sought</b>	
13.	<p><b>Do you agree that PCSM materials with a HAPAS certificate are appropriate in all carriageway situations?</b></p> <p><b>If no, please describe why and provide all the necessary supporting evidence.</b></p>

<b>Working Group Response</b>	
<p>16 of the 29 respondents to this question did not agree that PCSM materials with a HAPAS certificate are appropriate in all carriageway situations</p> <p>Five roads authorities agreed but the remainder disagreed. The roads authorities are concerned regarding the longer term performance of such materials and that they will have to deal with any future defects which occur. They are concerned that the HAPAS trial was only over a two year period and suggest that a 5-6 year trial is required.</p> <p>However, the working group recognised that PCSMs have been included in the English Code since 2010 and was not aware of any particular negative feedback regarding their use.</p> <p>The working group recognised that there are situations where the use of such materials can provide benefits but also recognised the roads authority concerns that it would not be appropriate for use in certain situations such as locations with significant turning movements. The working group recommends that the use of this material be allowed except in cases where the roads authority identifies an engineering reason which would make the use of a PCSM unsuitable in that situation.</p> <p>It is proposed that the SRWR be configured to alert the roads authority that an undertaker proposes to use a PCSM and a procedure for the use of such an alert be developed.</p> <p>It is also proposed that a list of all HAPAS approved PCSMs should be held on the SRWR and the appropriate treatment selected from this list whenever a PCSM reinstatement is recorded on the SRWR. This will allow failure rates for each approved material to be monitored and if deemed unacceptable,</p>	

allow the roads authority to remove agreement.

The working group also recommends that the Scottish Government undertakes a wider review of evidence to see if assurance can be given to roads authorities regarding the longer term performance of the material.

### **A8.3 Bituminous Mixtures**

Compaction of the various bituminous layers is the most important factor to ensure quality and a long term life of the reinstatement. The revision has amended A8.3 to be a performance based specification where an air void criterion has been added for all reinstatements. The previous method which took into account the number of passes has been included in the notes for guidance.

#### **Views Sought**

**14a. Do you agree that this method of compaction will improve the quality of the reinstatement?**  
**If not, please describe why and provide all the necessary supporting evidence.**

**14b. Do you see any problems with the performance specification requirement?**  
**If not, please describe why and provide all the necessary supporting evidence.**

#### **Working Group Response**

**14a.** 21 of the 29 respondents to this question did not agree that this method of compaction will improve the quality of the reinstatement.  
  
The philosophy is that we have moved from a method specification to an end product specification where the compaction achieved is the criteria and not the number of passes of the roller. This firmly places the responsibility onto the undertaker to achieve the compactions required.  
  
Notwithstanding the views expressed, the working group recommends that the wording in the draft consultation version of the Code be adopted.

**14b.** 12 of the 26 respondents to this question could foresee problems with the specification requirements.  
  
Many respondents considered that the Permitted Air Void contents should be as per BS594987. The working group had decided that the air voids requirement should not be as stringent as required in BS 594987 as the compaction achievable for hand laid material cannot be as great as for machine laid. The group remains of this view.

	<p>The guidance on the number of passes required remains in place to provide an indication of the minimum which would be expected to meet the specification.</p> <p>Some roads authorities have concern that this would push them towards more coring and testing.</p> <p>Notwithstanding the views expressed, the working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
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### **A9 Alternative Reinstatement Materials**

This section has been rewritten to facilitate the use of recycled materials which refers to any material excavated on site that can be:

- Immediately re-used;
- Sent off, treated then re-used; or
- Brought in from a recycling plant, not necessarily from the on-going site, but from a previous excavation.

### **Views Sought**

<b>15a.</b>	<b>Do you believe that use of alternative materials will be beneficial? If not, please describe why and provide all the necessary supporting evidence.</b>
<b>15b.</b>	<b>Do you already use alternative materials? If so, please provide information on whether or not you have benefited from using them.</b>
<b>15c.</b>	<b>Do you see the changes will support the increased use of alternative materials? If not, please explain what the remaining barriers are.</b>
<b>15d.</b>	<b>If you are involved in a recycling initiative, would you be happy to supply Scottish Government with information?</b>

### **Working Group Response**

15a.	<p>23 of the 31 respondents to this question agreed that the use of alternative materials will be beneficial</p> <p>All of those who did not agree were roads authorities which although they believe that the use of recycled materials has the potential to provide environmental and economic benefits, wish to balance these benefits against any increased longer term maintenance consequences. Their feeling is that the benefits accrue to the utilities</p>
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	whilst the potential maintenance risk remains with the roads authorities.
15b.	15 of the 25 organisations which responded to this question confirmed that they already use alternative materials.  This includes the re-use of excavated material and planings, SMR, HBM, foam concrete and reclaimed asphalt.
15c.	28 of the 29 organisations which responded supported the increased use of alternative materials.
15d.	25 of the 26 organisations which responded to this question confirmed that they would be happy to supply Scottish Government with information regarding their involvement in recycling initiatives.

### **A9 Alternative Reinstatement Materials**

A9.1 introduces hydraulically bound mixtures (HBMs) to BSEN14227 as approved materials without further trials.

#### **Views Sought**

**16. Do you agree with this approach?  
If not, please comment.**

#### **Working Group Response**

15 of the 29 organisations which responded to this question confirmed that they did not agree with the introduction of HBMs as approved materials without further trials.

Views were polarised with all undertakers, Zero Waste Scotland and contractors being in favour. Only 5 roads authorities supported the proposal, but 15 were against. Those for, recognised the environmental benefits of re-using materials. The roads authorities against, raised concerns regarding the durability, impermeability, potential frost damage and compatibility with existing road constructions. They were concerned that longer term problems with HBMs would fall to them and suggested that further trials were needed to prove the long term performance of such materials.

The working group proposes the following:

- HBMs to BSEN14227 shall be deemed to be approved without further trials.
- This shall be subject to advance notification of the intention to use an HBM (requiring a revision to the SRWR) and an obligation on the undertaker to consult with the roads authority when proposed for Major works and for any trenches longer than 5 metres.
- Monitoring shall be undertaken until more experience is gained in their

performance.

- SRWR will require reconfiguration to allow the use of such materials to be recorded. This will include supporting information including name of manufacturer, batch numbers etc.
- The Commissioner will take on responsibility for monitoring the use of HBMs and the level of failure in relation to more conventional materials. This will be reported on a 6 monthly basis.
- Any particular material which showed significant failure rates would be banned from use.

Where appropriate, the wording in the Code has been revised to reflect the forgoing. The wording in the Code of Practice for the Co-ordination of Works in Roads will also require to be reviewed to ensure that any processes required to deliver the forgoing are in place.

### **A9 Alternative Reinstatement Materials**

A9.4 has been expanded to encourage group and area trials to facilitate approval for wider use.

#### **Views Sought**

- |            |   |
|------------|---|
| <b>17.</b> | <b>Do you agree with this approach?<br/>If not, please comment.</b> |
|------------|---|

#### **Working Group Response**

All 29 respondents to this question confirmed their agreement to A9.4 being expanded to encourage group and area trials to facilitate approval for wider use.

### **A9 Alternative Reinstatement Materials**

A9.5 requires the recording of trials and agreements on a central register.

#### **Views Sought**

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|------------|---|
| <b>18.</b> | <b>Do you agree this adds value to the process?<br/>If not, please comment.</b> |
|------------|---|

#### **Working Group Response**

All 29 respondents to this question confirmed their agreement that the recording of trials on a central register be undertaken.

### **A11.2 Base and Binder Course Materials**

The binder penetration table now reflects a much wider range of soft and hard binders that impact on reinstatement design thickness. The thickness can vary in different conditions, so the table provides options. This has been updated to show the different labelling of products introduced by the new European standards. There should be no additional impact on industry as this formalises current procedure.

#### **Views Sought**

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| <b>19.</b> | <b>Are the requirements of Table A11.1 clear?<br/>If not, please suggest improvements.</b> |
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#### **Working Group Response**

Of the 29 responses to this question, 18 agreed that the requirements of Table A11.1 are clear. Further reference can be found to this issue in Appendix A3 of the Specification. The working group considers the table to be acceptable and recommends that the version in the draft version of the Code be adopted.

### **A12.2.2 Modular Paving and use of Natural Materials**

The reinstatement of modular surfaces recognises the need to manage the replacement of broken and defective paving. Natural paving materials such as 'Caithness slabs' are important materials as the reinstatement of those types of natural materials needs special consideration. In many cases they are cracked and chipped but still fit for purpose in the setting that they are placed. The revision sets out that natural materials even if broken will not be disposed of and may, in agreed circumstances, be reused for the permanent reinstatement.

#### **Views Sought**

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|------------|---|
| <b>20.</b> | <b>Do you agree that there is a special case relating to the use of natural materials in reinstatements?<br/>If not, please describe why and provide all the necessary supporting evidence.</b> |
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#### **Working Group Response**

All 29 respondents to this question confirmed that there is a special case relating to the use of natural materials in reinstatements.

## Any issues not covered by the Foregoing

### Views Sought

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|-----|--|
| 21. | <p>Are there any additional issues that are not covered by this consultation?</p> <p>If so, please describe why and provide all the necessary supporting evidence.</p> |
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### Working Group Response

11 respondents provided additional issues for consideration. Annex A sets out the response to issues that were raised as part of the consultation process and not covered elsewhere.

## Annex A – Issues not Covered by the Foregoing

Issue	Response
<p><b>1.</b> General to the SRORv3 (Scotland). Errata in SROHv3 identified in re-print c. January 2012. These all appear to have been incorporated.</p>	<p>Noted.</p>
<p><b>2.</b> General to the SRORv3 (Scotland).</p> <p>New phrase requiring Road Authority (RA) to place information (as SEDs) on the Gazetteer have been provided at S1.9.1, S6.1(3), S6.4.5.5(1), S7.1(5), S7.1(6), S8.3.4(3).</p> <p>This is welcomed by Utilities, but query whether this should be Associated Street Data (ASD) rather than SEDs. Post SROHv3 (England) publication, the HAUC (UK) SROH WP joint-chairs liaised with the NSG Developers ahead of their revised Code of Practice. A fuller listing of all Sections in the SROHv3 (England) where data known to the Highway Authority being made available via ASD was provided. This is in line with the efforts of the RAUC(S) WP looking at SRORv3 (Scotland).</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>3.</b> S0 Figure S0.1 Second Last and Last Grey Cells - reference to "Exceptions". SRORv3(S) has used the word "Provisions" in the relevant Clause.</p>	<p>Agreed. Diagrams have been revised accordingly.</p>
<p><b>4.</b> S1.6.1(iii) and S1.6.4(ii)</p> <p>Reference to A9.6</p> <p>Typo - suspect this should be A9.5.</p>	<p>Reference has been revised.</p>
<p><b>5.</b> S2.2.1(1)</p> <p>As-Laid tolerance revised to +6mm/-3mm</p> <p>The lower tolerance of -3mm is probably unachievable. Query whether this is in line with current RA laying practices. Presents an increased risk of 'soft' defects in reinstatements. Is there a body of evidence that this 3mm delivers an</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

improved reinstatement quality in the eyes of the public?	
<p><b>6. S2.6 (General)</b></p> <p>Reference to there being no requirement to provide texture depth, PSV or AAV that is superior to the existing adjacent surfaces has been omitted. Recurs at several sub-sections of S2.6.</p> <p>This omission by default requires the Utility to provide minimum skidding resistance values irrespective of the condition of the existing road. In the event these minimum standards are not met by a marginal amount, this omission removes any engineering judgment when comparing the different skidding resistances. In reality, it arguably increases the potential for differential skidding instances between the Reinstatement and the Adjacent running surface.</p>	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<p><b>7. S3.1.5</b></p> <p>Clause brought in verbatim from equivalent Notes for Guidance (NfG) Clause in SROHv3 (England)</p> <p>Believe this should revert to NfG section, as there is no remedy in the event that aesthetics are not taken into regard. Who determines such an assessment, and what guidance is provided?</p>	Agreed. The relevant paragraph has been moved to NG3.1.2.
<p><b>8. S6.4</b></p> <p>Opening Sentence refers to 'provisions' rather than 'exceptions' (see S0 comment above)</p> <p>Not a big issue between Exceptions and Provisions.</p>	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<p><b>9. S6.4.5.3(e)</b></p> <p>Porous Asphalt - reference to HAPAS Bond Coats</p> <p>Are there such HAPAS approved bond coats; is there a differential cost increment in requiring this approved material.</p>	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.

<p><b>10. S6.4.10(1)</b></p> <p>Provisions for Small Excavations and Narrow Trenches limited to Types 3 and 4 Roads</p> <p>Limitation new to SRORv3 (Scotland). Affects potential for 1st time reinstatement in major roads, where such reinstatement is actually most needed. Backward step, with no known data to support decision.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>11. S6.5.2.1(2) and Fig S6.1</b></p> <p>Angles less than nominal 90 degrees</p> <p>SRORv3 (Scotland) does not permit angles less than 90 degrees. This retains SRORv2 (Scotland) provisions and does not consider flexibility built into SROHv3 (England) debated at much length by the HAUC (UK) SROH WP</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>12. S7.3</b></p> <p>Opening Sentence refers to 'provisions' rather than 'exceptions' (see also S0 comment above)</p> <p>Not a big issue between Exceptions and Provisions</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>13. S8.3</b></p> <p>Opening Sentence refers to 'provisions' rather than 'exceptions' (see also S0 comment above)</p> <p>Not a big issue between Exceptions and Provisions</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>14. S10.2.3(2)</b></p> <p>Air Voids Testing provisions</p> <p>Maximum and Bulk density Tests have incorrect references.</p>	<p>Noted. References have been amended.</p>
<p><b>15. S10.2.3(4)</b></p> <p>Coring proximities</p> <p>75mm clearance to edge of reinstatements is a welcomed retention from the 2nd Edition - unlike SROHv3 (England). However, clearance of 75mm</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p>to edge of a fixed feature (especially) ironwork should be 100mm for safety/damage purposes.</p>	
<p><b>16. S10.3(2)-(4)</b></p> <p>Sub-Clauses taken from NfGs under SROH v3 (England)</p> <p>Whilst positioning in the Specification undoubtedly amplifies the importance of compaction good practice, it is guidance, rather than a Specification item.. These should therefore revert to the NfGs.</p>	<p>Noted. The wording has been amended to clarify that this is a specification item.</p>
<p><b>17. S11.5</b></p> <p>Ironwork and Apparatus</p> <p>Some sub-Clauses from the SROHv3 (England) including Fig S11.1 have either been moved to NfGs or omitted under SRORv3 (Scotland). Subsequent to publication of SROHv3 (England) the HAUC (UK) SROH WP has published a FAQ re-affirming that S11.5 applies only to Carriageways and apparatus greater than 600mm in width - THIS IS AN ESSENTIAL CHANGE THAT IS REQUIRED FOR THE SRORv3 (Scotland).</p>	<p>Noted. Not agreed. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>18. Table S12.1</b></p> <p>Maximum Crack Length</p> <p>Reference to 10% of the Reinstatement Perimeter noted in both current SRORv2 (Scotland and SROHv3 (England) has been omitted. This is a significant change, especially when a trench unit of 200m is considered. This must be reinstated.</p>	<p>Noted. Not agreed. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>19. S12.3.2</b></p> <p>Cracking Beyond Reinstatement Limits</p> <p>The minimum length of crack has been changed from a minimum 2000mm [noted in both current SRORv2 (Scotland and SROHv3 (England)], to (now) less than 500mm in carriageways (via Table S12.1 changes). The 2000mm minimum dimension must be reinstated in the absence of data to show that such cracks have otherwise been problematic.</p>	<p>Noted. Not agreed. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>



<p><b>20. A2.0.1(1)</b></p> <p>As per S6.4.10(1) above, provisions for Small Excavations and Narrow Trenches limited to Types 3 and 4 Roads</p> <p>Limitation new to SRORv3 (Scotland). Affects potential for 1st time reinstatement in major roads, where such reinstatement is actually most needed. Backward step, with no known data to support decision.</p>	<p>Noted. Not agreed. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>21. Table A2.3</b></p> <p>Laying Temperatures - Materials</p> <p>Material references to CGSC, DSC and DBC are old and need correct reference to ACCSC, ACDSC and ACBC respectively.</p>	<p>Agreed. The wording of the Code has been amended to reflect this.</p>
<p><b>22. Figures A2.3 to A2.5 (incl.)</b></p> <p>Top Right Grey Cell in each Figure - reference to "Exceptions". SRORv3(S) has used the word "Provisions" in the relevant Clause</p>	<p>No exceptions in cells. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>23. Appendices A3.2 to A3.4 (incl.)</b></p> <p>Flexible Roads - Types 2 to 4 incl.</p> <p>Note 4 in all Appendices has been omitted - this is in reference to designed roads. Query RAUC(S) WP reasoning.</p>	<p>Layer depths used come from HD26. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>24. A9.2(1)</b></p> <p>Inclusion of HBMs with FCRs as exempt from A9 trials/approvals.</p> <p>Fundamental reversal of a previous HAUC (UK) Advice Note and provisions included in SROHv3 (England) - can RAUC(S) WP provide supporting data to confirm its reasoning on this removal.</p>	<p>The working group has taken a considered view and recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>25. A9.3.4</b></p> <p>As above, provisions supporting HBMs removed</p>	<p>The working group has taken a considered view and recommends that the</p>

<p>under the SRORv3 (Scotland)</p> <p>As above.</p>	<p>wording in the draft consultation version of the Code be adopted.</p>
<p><b>26.</b> After A9.3.5.2</p> <p>Reference to HBM Production noted in SROHv3 (England) omitted - follows above</p> <p>As above.</p>	<p>Not agreed. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>27.</b> After A9.3.5.2</p> <p>Reference to SMF Material noted in SROHv3 (England) omitted.</p> <p>Can RAUC(S) WP provide supporting data to confirm its reasoning on this removal? Else SRORv3 (Scotland) provides no Specification or Guidance to industry.</p>	<p>Not agreed. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>28.</b> After A12.4</p> <p>Reference to Pre-existing Surface Damage outside limits of Undertaker's</p> <p>Specification Clauses - noted in both current SRORv2 (Scotland and SROHv3 (England) - (ref A12.5) moved to NfGs.</p> <p>As a Specification Clause, obligations are placed on RAs to provide replacement modules; something RAs and HAs in England/Wales are poor in undertaking. Moving to NfGs devalues this obligation further.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>29.</b> NG10.2.3(5)</p> <p>Coring adjacent to Apparatus</p> <p>Clearance of 75mm to edge of a fixed feature (especially) ironwork repeated. This should be 100mm for safety/damage purposes.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>30.</b> NGA12.5</p> <p>Joint Inspections and Cost Recovery</p> <p>As above, Specification Clauses - noted in both</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p>current SRORv2 (Scotland and SROHv3 (England) - (ref A12.5) moved to NfGs.</p> <p>As a Specification Clause, obligations are placed on RAs to provide replacement modules; something RAs and HAs in England/Wales are poor in undertaking. Moving to NfGs devalues this obligation further.</p>	
<p><b>31.</b> New Roads and Street Works Act 1991 Specification for the Reinstatement of Openings in Roads Draft Third Edition Scotland It is not apparent in the document that there are any sections relating to processes for rectification of remedial works Whilst we do not endorse failed reinstatements it has to be accepted that in certain circumstances remedial works will be required to be undertaken.</p>	<p>Noted. Rectification should be undertaken as per the specification.</p>
<p><b>32.</b> Moreover in the current climate we are looking to reduce disruption to the travelling public and increase sustainability, the drafting of any new reinstatement document should give consideration and the opportunity to include processes that meet these criteria. I feel that now that the opportunity has arisen for the inclusion of thermal (infrared) processes, hence consideration of these processes should be included in the revised Specification.</p>	<p>Noted. This could possibly be covered in a future version of the Code.</p>
<p><b>33.</b> As long as the thermal process is BBA HAPAS approved for permanent repair. Thermal repair is now a widely accepted and proven remedy for failed reinstatements and is being used across the industry.</p> <p>I would welcome this comment being considered for addition to the revised document, more information regarding the process can be supplied if required, or visit our web site @ <a href="http://www.nuphalt.com">www.nuphalt.com</a>, to find out more regarding thermal repair, if you require more information please do not hesitate to contact me</p>	<p>Noted.</p>
<p><b>34.</b> It is disappointing to note that S12.3.3, Repair of Cracking remains unchanged from the previous version. Potholes studies and reports undertaken by both HMEP and Adept both stress the importance of sealing surface interfaces to prevent the ingress of water. S.2.2.1 - See S.2.2.2 below -</p>	<p>Not part of this review.</p>

<p>does S.2.2.2.1 not contradict S.2.2.1.1? S2.2.2 - Edge depression limits of 10mm are unacceptable for new reinstatement. In order to comply with the Disability Discrimination Act this has to be reduced. DDA Good Practice Guide for Roads suggests that surfaces should be flush with an absolute maximum tolerance of 6mm (at dropped footway crossings). Likewise the DFT's Inclusive Mobility states 'level or flush access is essential for the majority of wheelchair users' (3.13). S2.3 of the draft refers to +/- 6mm at dropped crossings but 10mm at other locations? +/- 6mm should be adopted for all footway surfaces and crossing areas (as a minimum). S.2.2.3.2 - Surface depression intervention criteria needs reduced. It cannot be deemed acceptable to have a new footway reinstatement less than 1 metre wide, running to 1 inch lower than the adjacent footway. This has effects on accessibility, the aesthetical character of the area and is also likely to result in water ponding (see S2.2.3.3 below). S2.2.3.3 - Standing water in footways - very dangerous during winter due to freezing on untreated routes. We suggest that the 500mm intervention width is removed to prevent the formation of patches of black ice. Any reinstatement, which results in such obvious detriment to the existing network, cannot be deemed acceptable. The ethos of the RAUCS environment is to work together to encourage better working practices. If anything the clauses listed within this section oppose this ethos.</p>	
<p><b>35.</b> A12.2.1 4) This relates to bedding materials for modular surfaces. Some specialist materials such as rare or highly finished stone modules require particular laying courses e.g. DBM. In some cases the supplier may also have specified particular operative qualifications. This clause should be expanded to require Utilities to discuss specialist materials with Authorities. The relevant laying courses and appropriately qualified staff must be employed. In some cases this may result in specialist sub-contractors or Local Authority personnel carrying out the work. Acceptability Criteria.</p>	<p>Comment reviewed. The working group is content that is covered by SEDs.</p>
<p><b>36.</b> A study carried out by South Lanarkshire Council found that the ground near to reinstatements often settled over time. This phenomenon is likely to be due to loosening of the</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the</p>

<p>adjacent ground during excavation. Damage caused in this way is not picked up by the current inspection regime or the SROR. It is suggested that this can be improved by allowing assessment of collateral damage and also by lengthening the guarantee period. South Lanarkshire Council believes this to be a significant problem. This relates to bedding materials for modular surfaces.</p>	<p>Code be adopted.</p>
<p><b>37. S2.2.1 (1)</b></p> <p>As Laid tolerance changed to +6/-3</p> <p>Difficult to achieve and very difficult to measure on site, how do you lay a kerb against a road that was constructed to a different tolerance.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>38. S6.4.10 (1)</b></p> <p>Small excavations and narrow trenches now apply only to type 3/4 roads</p> <p>There is no data available that supports a need for this change. As most small reinstatements in the road also include a small reinstatement in the footway this change will mean there is now a need for 3 types of reinstatement materials at these locations. This will lead to a second vehicle being needed or increased turnaround time for reinstatements to be completed.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>39. S10.2.3 (2)</b></p> <p>The in-situ air voids content for all bituminous materials</p> <p>This section is incorrect Maximum density is determined by BS EN 12697-5 and bulk density is determined by BS EN 12697-6.</p>	<p>Noted. Wording has been amended.</p>
<p><b>40. S10.2.3 (2)</b></p> <p>Removal of The in-situ air void content shall be calculated as an average from all results obtained</p> <p>This is a standard procedure for all air void testing it is included in SROH 2 Scotland and SROH 2/3 England.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p><b>41. S10.2.3 (2)</b></p> <p>Removal of, The overall accuracy of this test measurement is deemed to be + or - 0.5%</p> <p>FAQ on HAUUK UK web site determined that as Table S10.1 gives limits in whole numbers then results should also be given in whole numbers. HAUC UK answer was that the + or - 0.5% be reinstated.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>42. S12.3</b></p> <p>Repair of cracking</p> <p>10% of the reinstatement perimeter has been removed from Table S12.1 this is a big change from the second edition of the SROH what research and evidence is there for tis change.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>43. S12.3.2</b></p> <p>Cracking beyond reinstatement limits</p> <p>Limits changed from 2m to 0.5m What evidence or research is there for this change.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>44.</b> It is not apparent in the document that there are any sections relating to processes for rectification of remedial works. Whilst we do not endorse failed reinstatements it has to be accepted that in certain circumstances remedial works will be required to be undertaken. Moreover in the current climate we are looking to reduce disruption to the travelling public and increase sustainability and the drafting of any new reinstatement document should give consideration and the opportunity to include processes that meet these criteria. [***] feels now that the opportunity has arisen for the inclusion of thermal (infrared) processes, hence consideration of these processes should be included in the revised Specification (as long as the thermal process is BBA HAPAS approved for permanent repair).</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>45.</b> It is disappointing to note that S12.3.3, Repair of Cracking remains unchanged from the previous version. Permitting up to 2.5 mm cracks for a length of 500mm in a new patch before intervention should have been changed, as it is well known that</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p>any crack will allow the penetration of water. With subsequent freezing and thawing, this will inevitably result in a failure. We would like to see the reintroduction of overbanding.</p>	
<p><b>46.</b> Bedding materials for high amenity surfacing materials, such as may be found in town centre streetscaping is not covered. East Ayrshire Council has introduced guidance for Undertakers working in such situations.</p>	<p>Comment reviewed. The working group is content that is covered by SEDs.</p>
<p><b>47.</b> S11.7 – should be clear that overbanding is not permitted without express prior agreement of the Road Authority.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>48.</b> S1.1.1. – Add to the end of the paragraph that the alternative specification will be recorded within the notice details for the given site.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>49.</b> S1.5.3. – Better clarity required on what a deep opening is</p>	<p>The working group is content that this is clear. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>50.</b> S2.2.4. – What about the effects of multiple reinstatements close to each other causing a combined defect.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>51.</b> S3.1 – suggest renumbering and adding a new S3.1.1 as follows  Before any works commence all obvious damage to the existing site should be noted and notified to the Roads Authority.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>52.</b> S3.1.2 – suggest changing lifted carefully to hand excavated. The word securely should be added after stored.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<b>53.</b> S3.3.2 – remove as soon as practicable and replace with no later than by the end of the next working day.	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<b>54.</b> S8.3.5.3).(i) – add hand in front of excavated and securely after stored.	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<b>55.</b> S8.3.6 – question parts 4) and 5) and also diagram S8.1 – better clarity required.	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<b>56.</b> S12.3.2 – better description of what “cracking is” required	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<b>57.</b> A3.1. Type1 Flexible Roads – overall depth of bound materials has been reduced to 320mm – is this correct?	Yes
<b>58.</b> S0.5 Using the Specification and Appendices to undertake the correct reinstatement. This section only gives ref to NSG data held within the register. Many roads have a greater depth of bound material which may have been a result of several overlays – there should be a requirement to match this existing specification if it is encountered. No guidance is given for this scenario. The latter notes are also relevant for S1.3.5 – The only reference to total thickness of a carriageway is given under S7.1 General – 1; this example is for a composite road with an existing overlay. SU’s, where in doubt, should contact the RA for further advice upon realising that specifications are differ from those given in the SRWR. This will ensure performance is uniform. RAs should record these as SEDs	Not agreed. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<b>59.</b> S1.1.1 An Undertaker executing road works shall carry out the excavation and reinstatement in accordance with this Specification. Where this	Not agreed. The working group recommends that the wording in the draft



<p>Specification allows alternatives, the Undertaker shall select one of the permitted options. Regardless of which alternative is selected, the Undertaker shall guarantee the performance of the reinstatement to the relevant standards, for the relevant guarantee period. (Proposed Additional Sentence) Where an undertaker chooses to incorporate one of the alternative specification(s), then this will be recorded within the notice details for that given site.</p>	<p>consultation version of the Code be adopted.</p>
<p><del>60. S1.5.3 Deep Openings – all excavations and trenches in which the depth of cover over the buried apparatus is greater than 1.5 metres. Trenches with a depth of cover that is intermittently more than 1.5metres for lengths of less than 5 metres are not deemed to be deep openings.</del></p> <p>(Proposed Section S1.5.3) Deep Openings - all excavations and trenches in which the depth exceeds 1.5m from the base of the trench will be considered as a deep opening. Trenches with an intermittent depth of more than 1.5m for lengths of less than 5m are not deemed to be deep openings.</p>	<p>Not agreed. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>61.</b> S1.6 Alternative Options (iii) Local agreements under this section only become valid when recorded using the procedure set out in Appendix 9.5.</p>	<p>Agreed. The working group recommends that this clause is adopted.</p>
<p><b>62.</b> S2.2.4 Combined Defect – Intervention 4) Earlier intervention shall be required if the depression alone results in standing water wider than 500 mm or exceeding one square metre in area, at 2 hours after the cessation of rainfall, (Proposed Addition to Sentence) also if the track is longitudinal and holds water during or after periods of rain. Working Group: Please consider the effect of multiple reinstatements, over short distances, and the cumulative effect they have on riding characteristics.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><del><b>63.</b> S2.2.5 Condition at End of Guarantee Period2) At the end of the guarantee period, where the profile of the existing surfaces adjacent to the reinstatement is uniform and the surface of the reinstatement is outside the intervention limits, the Undertaker shall carry out remedial works to restore the surface profile of the reinstatement to a condition consistent with the adjacent surfaces.</del></p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p>Proposed Section S2.5.2.5 (2) Remain status quo as per original SROR text – Where the profile of the existing surface to the reinstatement is uniform and substantially superior to the surface of the reinstatement, the Undertaker shall carry out remedial work to restore the surface profile of the reinstatement to a condition consistent with the adjacent surfaces.</p>	
<p><b>64.</b> S3.1 Breaking the Surface - (Proposed New Section S3.1.1) Before breaking the surface all obvious damage to the existing site should be notified to the road authority.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><del>65. S3.1.2 When excavating in modular construction, the existing modules shall be lifted carefully, and stored for re-use. Where pre-existing damage has resulted in fragmentation or breakage of modules made out of natural materials the fragments shall be removed and stored, unless agreed otherwise with the Authority.</del></p> <p>(Proposed Section S3.1.2) When excavating in modular construction, the existing modules (pre-cast modules to be removed by hand) shall be lifted, in a manner to prevent any damage, and stored for re-use , at a location to be agreed by the RA. Where pre-existing damage has resulted in fragmentation or breakage of modules made out of natural materials the fragments shall be removed and stored (securely), unless agreed otherwise with the Authority.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><del>66. S3.3.2 Excavated material unsuitable for re-use shall be removed from site as soon as practicable. Excavated material retained on site shall be stockpiled within the confines of site barriers, at a safe distance from the trench edge and prevented, so far as is practicable, from entering any drainage system or water course</del></p> <p>S3.3.2 Excavated material unsuitable for re-use shall be removed from site no later than 16.30 the next working day. Excavated material retained on site shall be stockpiled within the confines of site barriers, at a safe distance from the trench edge and prevented, so far as is practicable, from entering any drainage system or water course.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p><b>67. S4 Surround to Apparatus</b></p> <p>No guidance given for an acceptable backfill if the apparatus cannot be laid at a deeper depth i.e. will this require a concrete surround. See S5.3.3 also. Should a minimum depth be quoted for backfill, if the depth cannot be achieved?</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>68. S6 Flexible and Composite Roads</b></p> <p>S6.1.3 Method C - Permanent Base Reinstatement</p> <p>Addition - where (FCRs) have been used, a tack coat shall be applied if they are to receive subsequent bituminous layers. This may be clarified under S6.5, S6.5.1.</p>	<p>Wording has been clarified at 6.5.1(2).</p>
<p><b>69. S6.4.3 Asphalt Concrete Surface Course Materials</b></p> <p>Where the existing surface course material is asphalt concrete it may be reinstated with any of the surface course options in Appendix A2 to A4.</p> <p>(Proposed Section S6.4.3 ) Where the existing surface course material is asphalt concrete it shall be reinstated with an asphalt concrete to match the existing road surface.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>70. S6.4.6 Surface Treatments</b></p> <p>In Types 3 &amp; 4 roads either:</p> <p>a) Surface dressing or other surface treatment is not required when any binder course and surface course option permitted by Section S6.4 is laid, or</p> <p>b) The surfacing layers and equivalent surface dressing or other surface treatment shall be reinstated by agreement.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>71. S6.4.10 Small Excavations, Narrow Trenches and Access Chamber Covers</b></p> <p>1) In types 3 and 4 roads a permanent surface course material in accordance with Appendix A2 may be laid in place of a permanent binder course material at Base and/or binder course level in:</p> <p>i) small excavations and narrow trenches (as</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p>defined in Sections S1.5.1 &amp; S1.5.2);  Addition – notes should be added in this section that reinstatement shall be replaced in layers within the tolerances permitted.</p>	
<p><b>72. S6.5.2.2 Edge Sealing</b></p> <p>1) At any interim stage and at the time of permanent reinstatement, the top 100 mm, at least, of all bound vertical edges at surface course and binder course levels, and the equivalent area on kerbs and exposed fixed features, shall be painted (by spray application or using a brush / roller - not poured, refer to NG6.5.(2 &amp; 3)) with a bitumen based edge sealant or otherwise prepared with an edge sealing system or equivalent material There shall be no significant splashing, spillage or any deliberate over painting of the adjacent road surface, subject to the requirements of Section S11.7.</p>	<p>Agreed. Working group considered proposal sensible.</p>
<p><b>73. S6.5.2.3 Proximity to Road Edges, and Fixed Features</b></p> <p>Minimum width(s) should be stated as 150mm (on f/way) or 250mm (on c/way).</p>	<p>Section is about carriageway, no reference to footway. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>74. S8 Footways, Footpaths and Cycle Tracks</b></p> <p>S8.3.5 Modular Footways, Footpaths and Cycle Tracks</p> <p>3) Specific to the reinstatement of natural stone modular surfaces, the following shall apply:</p> <p>(i) <del>Natural stone modules within the area to be excavated shall be removed and stored by the Undertaker for reuse.</del></p> <p>(Proposed Section S8.3.5 (3 (i)) When excavating in natural stone, the existing modules shall be removed by hand and shall be lifted in a manner to prevent any damage, stored for re-use, at a location to be agreed by the RA. Where pre-existing damage has resulted in fragmentation or breakage of modules made out of natural materials the fragments shall be removed and stored (securely), unless agreed otherwise with the RA.</p>	<p>This is covered elsewhere. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p><b>75. S8.3.6 Edge Requirements</b></p> <p>5) Fixed features in the footway such as sign posts, lamp columns, valve cover boxes etc. that are less than 250mm diameter or 250 mm width on the side facing the reinstatement are exempt from the trim-line extension.</p> <p>No - a slither of less than 150mm (say 20mm) left insitu would not be acceptable S8.3.6 (5) should read; Fixed features in the footway such as sign posts, lamp columns, valve cover boxes etc. that are less than 250mm diameter or 250 mm width on the side facing the reinstatement are exempt from the trim-line extension when that distance is equal to or greater than 150mm – OR STATEMENT REMOVED COMPLETELY.</p>	<p>Agreed that the statement should be omitted from the Code. Diagram Figure 8.1 revised.</p>
<p><b>76. S9 Verges and Unmade Ground</b></p> <p>S9.3 Cultivated Areas</p> <p><del>9.3.1 Unless otherwise agreed, cultivated areas containing shrubs, plants or bulbs shall be reinstated using the same or similar species. Thereafter, a reasonable growth shall be established within the following 12 months. Where the Authority knows of special features in verges (e.g. orchid sites etc.) it should inform the Undertaker in order to agree the best means of conserving the special features.</del></p> <p>Addition 9.3.2 – Where possible all excavated shrubs, plants or bulbs shall be retained for re-planting on completion of the work. Care shall be taken to ensure that root systems are retained during excavation and the shrubs, plants or bulbs are protected from drying out whilst waiting re-planting.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>77. S9.4 Grassed Areas</b></p> <p>1) Grassed areas shall be reinstated using the original turf, replacement turf or an equivalent seed, depending on weather and growing season. In all cases, a reasonable growth shall be established within the following 12 months.</p> <p>1) Grassed areas shall be reinstated using the</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted. Unnecessary specification.</p>

<p>original turf. Where this cannot be achieved then a replacement turf (to BS 3969 – 1998 or current) or an equivalent seed (to BS3883 – 2007 or current) may be used. In all cases, a reasonable growth shall be established within the following 12 months.</p>	
<p><b>78. S12 Remedial Works</b></p> <p>S12.1 General</p> <p>S12.1.1 The Undertaker shall be responsible for ensuring that reinstatements comply with the required performance criteria throughout the interim reinstatement and guarantee periods.</p> <p>(Proposed New S12.1.2.) The Undertaker, upon reasonable request, shall provide details for any given site to ensure they have complied with S12.1.1.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>79. S12.3.3 (2) Two re-sealing operations, excluding the original sealing, shall be permitted during the guarantee period. Further significant cracking of the third seal shall require a surface repair, as follows: Clarification required - if sealing operation is not permitted after the guarantee period is ended e.g. cracking is evident during an SC inspection and the SU does not carry out a repair before the end of the initial warranty period, then would this result in only 1 application of sealer being permitted.</b></p> <p>b) Surfacing materials shall be removed over sufficient width to ensure that the repair patch extends beyond the edges of the crack, by a minimum distance equal to the nominal thickness of the replacement surface course. The minimum width of the repair patch shall be 100 mm. This is not in line with previous compaction requirements i.e. min width of compaction plant foot print. How can sufficient compaction be achieved in a width of 100mm. Also as a repair scenario this may end with 4 joints running along a reinstatement for any given distance.</p>	<p>No obligation on undertaker following guarantee period. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>80. Clarification also required on timescale for SU to carry out repair i.e. if a defect is identified and the SU fails to respond for several months, then the open interface can and will be affected by the ingress of water and also hydraulic pressure from</b></p>	<p>Inspection Code issue. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p>passing traffic. This will result in a further weakness of the joint to which a resealing operation may become ineffective. If the timescales are achieved for remedials (with-in 17 working days) then the resealing exercise should be complete with-in 34 working days of the first defect. Outwith this timescale (more than 34 working days), the remedial action should be escalated by engineering judgement to include.</p>	
<p><b>81. A3.1 Type 1 Flexible Roads</b></p> <p>See East Lothian Appendix 1</p> <p>The above diagram shows the overall depth for bound layers on Flexible Road Type 1 as being 320mm.</p> <p>Current SROR states total bound layers depth 350mm – copy/paste from SROH?</p>	<p>The diagram reflects the policy. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>82.</b> It is disappointing to note that S12.3.3, Repair of Cracking remains unchanged from the previous version. Potholes studies and reports undertaken by both HMEP and Adept both stress the importance of sealing surface interfaces to prevent the ingress of water. Permitting up to 2.5 mm cracks for a length of 500mm in a new patch before intervention should have been changed, as it is well known that any crack will allow the penetration of water. With subsequent freezing and thawing, this will inevitably result in a failure. This clause directly contradicts all other guidance / studies / reports which highlight that water ingress as a major cause of network failure.</p>	<p>No recommendation.</p>
<p><b>83. S.2.2.1 - See S.2.2.2 below - does S.2.2.2.1 not contradict S.2.2.1.1?</b></p> <p>S2.2.2 - Edge depression limits of 10mm are unacceptable for new reinstatement. In order to comply with the Disability Discrimination Act this has to be reduced. DDA Good Practice Guide for Roads suggests that surfaces should be flush with an absolute maximum tolerance of 6mm (at dropped footway crossings). Likewise the DFT's Inclusive Mobility states 'level or flush access is essential for the majority of wheelchair users' (3.13). S2.3 of the draft refers to +/- 6mm at dropped crossings but 10mm at other locations?</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p>+/- 6mm should be adopted for all footway surfaces and crossing areas (as a minimum).</p>	
<p><b>84.</b> S.2.2.3.2 - Surface depression intervention criteria needs reduced. It cannot be deemed acceptable to have a new footway reinstatement less than 1 metre wide, running to 1 inch lower than the adjacent footway. This has effects on accessibility, the aesthetical character of the area and is also likely to result in water ponding (see S2.2.3.3 below).</p> <p>S2.2.3.3 - Standing water in footways - very dangerous during winter due to freezing on untreated routes. We suggest that the 500mm intervention width is removed to prevent the formation of patches of black ice. Any reinstatement, which results in such obvious detriment to the existing network, cannot be deemed acceptable.</p> <p>The ethos of the RAUCS environment is to work together to encourage better working practices. If anything the clauses listed within this section oppose this ethos.</p> <p>See Fife Appendix 1</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>85.</b> S 2.2.1 and S2.2.2 seem to be contradictory. S2.2.1 states that construction tolerances at the edges of reinstatement shall not exceed +6mm/-3mm while S2.2.2 states that intervention is required when edge depression exceeds 10mm over a 100mm length. We would like to see +/- 6mm adopted for all footpath surfaces. This is also in line with Disability Discrimination Act – Good Practice Guide for Roads.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>86.</b> S 2.2.3 Intervention levels should be reviewed, +/- 25mm over 900mm width is excessive and should be reduced – we propose a maximum of +/- 10mm</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>87.</b> S 12.3.1 The intervention level for remedial work has remained at 2.5mm – this is excessive and should be removed with a statement added that any edge cracking should be recorded as a failure. Our attached survey in response to S1.2 Guarantee Period clearly demonstrates that any</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>



<p>edge cracking will ultimately result in the reinstatement failure which in turn unfairly increases the burden for repair on to the Road Authority.</p>	
<p><b>88.</b> Within Question 1, it asks about extending the Guarantee Period. This was discussed at length in the SROH working and was shown to have no supporting evidence that any reinstatement were failing in performance outside the existing length of time. The group supported that there may need to be further research to provide empirical evidence of instances and quantity.</p> <p>There are aspects to consider in respects to an extended guarantee which are design life of Road Markings, Anti-skid surfacing and surface treatments. Therefore, would require a multi-layered Guarantee system and this would be impractical.</p> <p>Possibly need to re-assess of the way inspections are carried out.</p> <p>Mo Abrahams initial reasoning for an increase of guarantee was not of increased defects after year 2 or 3. It was that it was difficult to complete even the basic sample inspection regime within this time. A five year would afford the Road Authority adequate time to do this to their satisfaction. It must be stressed that this is a resource issue rather than specification one.</p> <p>Other issues in this are the misunderstanding of the two different types of defect: Latent and Performance. If a reinstatement does fail after the existing guarantee period, it is usual down to a Latent issue if it is not attributed to an outside issue (i.e. adjacent reinstatement, existing carriageway, change of traffic issues).</p>	<p>Should be considered if the guarantee period is extended in future.</p>
<p><b>89.</b> Question 2 does have issues although the requirements are clear. Due to the availability of higher PSV stone, even at 55, there will be a lot of local agreements to cope with local supply. In today's environmental climate, we should be looking to the benefit of using local stone, which would have been used in the existing carriageway in most cases, to importing stone from sources like Wales.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>

<p>There is practical element to be considered in this as well in terms of laying techniques for trench work and proving defect after work is completed makes this difficult to be practical.</p>	
<p><b>90.</b> In respects to Q5, the text states that angles less than 90 degrees are allowed but not the diagram.</p>	<p>6.5.2.1.4 to be omitted. Diagram amended.</p>
<p><b>91.</b> Question 13 relates to the PCSM's. How about PCBM's that may become available? Also the voiding aspects should not be given a specific value but rather to what the manufacturer's requirements state as this is a performance characteristic to that particular brand.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>92.</b> Question 16, the issues against this that have been brought up are, essentially, not founded and are not progressive in nature. FCR's and HBM's have been used extensively within the Greater London area with considerable success and benefit. It is available to be used within the SROH and there are no reasons why this shouldn't be so within the SROR.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>93.</b> Question 20: Even though the Specification allows for this to happen, it is still to the Road Authorities discretion on whether or not it can be used. Shows no consistency which is something the specification requires.</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>94.</b> The Trimback rule will have a direct impact to the 2 square metre rule. This should relate to the actual extent of the reinstatement area rather than the surface area in this case. It is recognised that this would be difficult to enforce due to the visible issues relating to this - however this does highlight the similar issues that would occur in Coring Programme – National, Local or Internal (Utility).</p>	<p>Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.</p>
<p><b>95.</b> S2.2.3(3): Standing water has always been an issue to reinstatements and would agree that this should not happen. However, when the existing road has an existing issue and impacts to the new reinstatement, in terms of tie-in, should this not be taken into account in a similar fashion to the requirements in S2.2.5?</p>	<p>Working group agreed that the condition of the surrounding road should be taken into consideration as per S2.2.5.</p>

<b>96.</b> S5.3.2: The requirements here would exclude GSB type 1 to clause 803 in terms of maximum size. Also in (2), should this be a 31.5mm sieve to the modern grading systems?	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<b>97.</b> S6.4.5.3: The requirements here do not cover continuous drainage systems within the road space. Need to be amended for these eventualities.	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<b>98.</b> S6.4.8: Some events have shown that the combined thickness does not allow for the correct depths for a particular material. What happens in these instances?	Noted. Wording has been amended to reflect this scenario.
<b>99.</b> S6.5.2.5: Does this include an unbound step?	No
<b>100.</b> S10.3.4(2): “rolls” should be “Drums”	Noted. Wording has been amended.
<b>101.</b> S10.3.4(3): This could lead to voiding aspects not being achieved	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<b>102.</b> S12.3.3(c): Should this be a HAPAS approved material?	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<b>103.</b> A2.5(5a): Should be changed to “100mm of Bituminous Bound Materials”	Noted. Wording has been amended.
<b>104.</b> A2.6.2 (Table A2.2): How do you compact a minimum of 75mm of Type 1 when the maximum particle sieve size is 67mm and oversize?	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<b>105.</b> A9.3.3.(4): Should this not be classed as Damage rather than just continuing with a Plastic Sheet?	Noted. Wording has been amended.
<b>106.</b> NG2.6(1): “Coated material to BS 594987”	Noted. Wording has been

should be changed to “to BS 594987”	amended.
<b>107.</b> S6.3.3(2) & NG 6.3: Non-use of “Penning” – why?	Noted. The working group recommends that the wording in the draft consultation version of the Code be adopted.
<b>108.</b> NG10.2.3(5): Why 75mm? SROH is 100mm and Advice Note 3 is 300mm.	Noted. Recommended that the this figure shall be 100 mm as per the Specification for the Reinstatement of Openings in Highways.
<p><b>109.</b> It is not apparent in the document that there are any sections relating to processes for rectification of remedial works. Whilst we do not endorse failed reinstatements it has to be accepted that in certain circumstances remedial works will be required to be undertaken.</p> <p>Moreover in the current climate we are looking to reduce disruption to the travelling public and increase sustainability, the drafting of any new reinstatement document should give consideration and the opportunity to include processes that meet these criteria. I feel that now that the opportunity has arisen for the inclusion of thermal (infrared) processes, hence consideration of these processes should be included in the revised Specification.</p> <p>As long as the thermal process is BBA HAPAS approved for permanent repair.</p> <p>Thermal repair is now a widely accepted and proven remedy for failed reinstatements and is being used across the industry. I would welcome this comment being considered for addition to the revised document, more information regarding the process can be supplied if required.</p>	See Section S12
<p><b>110.</b> Some specialist paving materials require particular bedding layers and lower foundation layers. The material supplier may recommend specialised laying requirements.</p> <p>It is recommended the Utility Companies consult Local Authorities and suppliers for the use of specialist paving materials. The recommended bedding layers and foundation layers must be used</p>	The new wording goes into this area in detail and covers how it should be carried out.

and experienced and qualified labour must be used.	
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## Annex B – Consultation Distribution List

<b>Organisation</b>
Aberdeen City Council
Amey Infrastructure Services
Angus Council
Argyll & Bute Council
Audit Scotland
Autolink M6
BEAR Scotland Ltd
BP
Bridgend Training
BSkyB
BT Openreach
C&W
CECA(Scotland)
City of Edinburgh Council
Comhairle nan Eilean Siar
CPT UK
CPW Networks
Daniel Contractors Limited
Department for Transport
Dumfries & Galloway Council
Dundee City Council
East Ayrshire Council
East Dunbartonshire Council
East Lothian Council
East Renfrewshire Council

Energetics
Envoy
ES Pipelines
Falkirk Council
Fife Council
Forth Estuary Transport Authority
Freight Transport Association
Fulcrum
Gamma Telecom
Gas Transportation Company
Glasgow City Council
GTC
HAUC(UK)
Highland Council
INEOS
Instarmac
Inverclyde Council
JAG(UK)
M80DBFO for BEAR Scotland
MapInfo Scotland
Midlothian Council
Moray Council
National Grid
Network Rail
NJUG
North Ayrshire Council
North Lanarkshire Council

O2
Office of the Traffic Commissioner
Ordnance Survey
Orkney Islands Council
Perth & Kinross Council
RAUC(S)
Renfrewshire Council
Road Haulage Association
Royal Mail
Scotland Gas Networks
Scotland Transerv
Scottish & Southern Energy
Scottish Borders Council
Scottish Government
Scottish Power
Scottish Water
Scottish Water Solutions
Shell UK
Shetland Islands Council
Small World Media
South Ayrshire Council
South Lanarkshire Council
Stirling Council
Strathclyde Police
Susiephone Ltd.
Tay Road Bridge Joint Board
T-Mobile



Traffic Commissioner
Transport Scotland
TRL
Turriff
United Utilities
Verizon Business
Virgin Media
West Dunbartonshire Council
West Lothian Council

## Annex C – Respondent List

<b>Organisation</b>
Aberdeenshire Council
Angus Council
Balfour Beatty Utility Solutions
BEAR Scotland Ltd
City of Edinburgh Council
Clackmannanshire Council
Dumfries & Galloway Council
Dundee City Council
East Ayrshire Council
East Dunbartonshire Council
East Lothian Council
Enterprise PLC
Falkirk Council
Fife Council
Glasgow City Council
Liaison Group
North Ayrshire Council
Nu-Phalt
Perth & Kinross Council
Scotland Gas Networks
Scottish Borders Council
Scottish Water
Society of Chief Officers of Transportation in Scotland (SCOTS)
South Ayrshire Council
South Lanarkshire Council

Stirling Council
Virgin Media
West Dunbartonshire Council
West Lothian Council
Zero Waste Scotland
Plus two further respondents that wished to remain anonymous.

Further copies of this document are available, on request, in audio and large print formats and in community languages (Urdu; Bengali; Gaelic; Hindi; Punjabi; Cantonese; Arabic; Polish).

اس دستاویز کی مزید کاپیاں آڈیو کیسیٹ پر اور بڑے حروف کی چھپائی میں اور کمیونٹی کی زبانوں میں طلب کیے جانے پر دستیاب ہیں، برائے مہربانی اس پتہ پر رابطہ کریں:

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**Gheibhear lethbhreacan a bharrachd ann an cruth ris an èistear, ann an clò mòr agus ann an cànan coimhearsnachd. Cuir fios gu:**

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