

# Slot Drain Update

Principal Designers Working Group

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## Problem Statement

- National Highways Major Projects and their supply chain are incentivised to reduce the capital cost of projects. There is significant pressure to deliver to the capital enhancement affordability envelope.
- National Highways Operations and their supply chain are incentivised to reduce operational costs of running the network. There is significant operational funding pressure which has a flat profile.
- Slot drains are cheaper to construct than other forms of drainage and can create a lower cross sectional area for a new road which brings additional savings. Therefore, they are the preferred drainage solution on major projects and have been used extensively on Smart Motorways as well as some other new schemes such as A14.
- Slot drains are more costly and harder to maintain than V drains and therefore are not the preferred solution for Operations.
- The DMRB Design Standards allow their use and provide guidance on their application but this can be widely interpreted.
- In the absence of a clear direction, project teams and operational colleagues routinely get into a disagreement about whether slot drains are approved. This costs time and generates friction at a working level.
- We need to agree clearer direction for all our teams so as to reduce the time lost during the disagreement, create greater clarity for the situations in which slot drains are an acceptable solution and help improve the working relationships.

# Decision

1. That slots drains are not the National Highways preferred solution and should not be used.
2. We will update the design requirements to remove the use of slot drains. Once updated the use of slot drains will only be agreed via a departure from standard request.
3. We will develop a Major Project Instruction to support the preferred solution and confirm that any proposal to use slot drains should be justified via a Departure which should include a Type B Safety Risk Assessment and Whole Life Cost assessment. The Type B Safety Risk Assessment will convene a Safety Control Review Group that must include representation from SES Technical Advisors and Operational colleagues. A generic safety risk assessment template will be produced to act as guidance.
4. Cost estimating for projects and scope baselines should not be based on Slot Drains unless a departure in place.
5. Where a project is in delivery and has agreed to the use of slot drains as part of the scope and that was approved PCF Stage 3 SGAR then slot drains will continue to be approved and used. [Evidence should be that slot drains are in the PCF Stage 3 approved scope book and approved estimate].
6. All other projects shall adhere to the approach described in 1, 2 and 3 above.



# Next Steps

1. Update DMRB design requirements to remove the use of slot drains. Process as a priority change, if necessary via an England National Application Annex.
2. Develop and issue a Major Project Instruction that reflects the above approach.

