



REGENERATION AND ENVIRONMENT SCRUTINY COMMITTEE – 18TH SEPTEMBER 2012

SUBJECT: OPERATIONAL POLICY FOR VEHICLE RESTRAINT SYSTEMS

REPORT BY: CHIEF EXECUTIVE

1. PURPOSE OF REPORT

- 1.1 To seek Members comments on and support for the proposed operational policy to effectively identify and prioritise the need for Vehicle Restraint Systems on the local adopted highway network.

2. SUMMARY

- 2.1 The report recommends an evidenced based approach for the assessment of the need for Vehicle Restraint Systems to more effectively manage the Council's statutory obligations to identify and respond to real, as opposed to perceived, hazards and risks on the highway network.

3. LINKS TO STRATEGY

- 3.1 Engineering Services Division objective: to work towards positive measures to reduce road accidents and particularly by protecting and providing for vulnerable road users.

4. THE REPORT

- 4.1 The Council in its role as the Highway Authority has a statutory responsibility for the management and maintenance of the highway network that includes a need to keep the network safe for its users.
- 4.2 Vehicle Restraints Systems (VRS) are more commonly referred to as 'crash barriers' and examples of this type of system are included in Appendix 1. There are approximately 30 outstanding requests for VRS some of which have been outstanding for some years. To date these have not been considered because there has not been a specific budget allocated for this infrastructure. Despite this no highway users have been put at risk because officers regularly review the personal injury collision statistics to identify areas of concern on the network and to investigate whether or not there are any treatable factors. In addition any engineering schemes progressed include an assessment of the need for VRS in accordance with current design standards.
- 4.3 In order to redress the situation, more effectively manage the Council's statutory obligations and respond to requests an evidenced based approach to identify and respond to real, as opposed to perceived, hazards and risks on the highway network is proposed. A policy

including an assessment tool has been developed to be utilised when assessing the need for VRS on the adopted county roads and can be applied to:

- i. Hazards on new roads (and adoption of roads)
- ii. Road improvements
- iii. New hazards on existing roads
- iv. Parapet/VRS upgrades or replacements
- v. Maintenance schemes
- vi. Sites where safety performance issues have been raised (either by request or review of collision statistics)

4.4 The current standard in the Design Manual for Roads and Bridges (DMRB) that specifies the requirement for road restraint systems is TD19/06, prepared by the Department for Transport (DfT). The application of this technical standard is mandatory in England, Scotland, Wales and Northern Ireland for use on all trunk roads with speeds of 50mph or more. This is considered to be too onerous for application to local County roads, hence the development of this operational policy by officers for use on the local road network.

4.5 The policy has been developed to cover the following stages:

- Identify potential sites (requests, asset management, road improvements etc.)
- Appraise the site using the process in Appendix 2. Sites with a speed limit of 50mph or more and traffic flows in excess of 5000 Annual Average Daily Traffic (AADT) are automatically assessed under the detailed assessment stage given their importance within the highway network.
- The remaining sites are subject to a preliminary screening process (see Appendix 3).
- Those sites determined to warrant further investigation proceed to the detailed assessment stage.

Site Appraisal

4.6 This process methodically assesses the requirement for VRS at any location along the Council's highway network for the cases identified in 4.3 above (refer to Appendix 2).

Preliminary Screening

4.7 The aim of the preliminary screening is to filter sites at an early stage in to those that require detailed assessment and those that do not (refer to Appendix 3).

Detailed Assessment

4.8 In order to respond appropriately based on the results of any assessment, the output should first be categorised. This is done in accordance with the ALARP (as low as reasonably practicable) principle. This means that the overall cost of removing/reducing the risk must be weighed against its severity. The detailed assessment incorporates the following three methods, each one dependent upon the characteristics of each site:

- 1 Sites having a speed limit of 50mph or more and traffic flows in excess of 5000 AADT shall be assessed using TD19/06 including the Road Restraint Risk Assessment Process (RRRAP).
- 2 Sites forming the interface between road and rail shall be assessed following the content and risk ranking tool included in the DfT document 'Managing the Accidental Obstruction of the Railway by Road Vehicles'. This allows for the potential for being further assessed based on specific site hazards (e.g. trees).
- 3 All other sites shall be risk assessed following a risk scoring method that considers collision records and a number of various site factors that may or may not contribute to the risk (see Appendix 4).

Prioritisation

- 4.9 Those sites determined to require VRS to protect a hazard are subject to a final stage of the policy, prioritisation by Cost Benefit Analysis (CBA). Those sites affording a higher financial benefit will feature higher in the prioritised list and will be used to produce a forward programme and budget requirements.
- 4.10 Cost benefit analysis is a proven tool for providing a general comparison between the various measures that can be taken to alleviate a suitably high risk situation. By expressing each of these options in terms of a common unit (usually money), direct and accurate comparisons can be made to rank the available options, as well as prioritise different sites if required.

In relation to the provision of the implementation of VRS on the highway network, the Benefit/Cost ratio (B/C) is defined as:

B/C = Monetary value of Net Benefit/Cost of Proposed Solution

Where Net Benefit is defined as the reduced cost of accidents as a result of the proposed option and the cost should include provision, maintenance and mitigation of any proposed works.

Legal Liability

- 4.11 The local Highway Authority is responsible for design, maintenance and assessment of all roads and infrastructure within their highway boundary other than trunk roads. Trunk roads are the responsibility of the Welsh Government and its appointed Agents and are subject to the requirements of the DMRB. The UKRLG publication "Highway risk and liability claims: A Practical Guide to Appendix C of 'Well Maintained Highways – Code of Practice for Highway Maintenance Management'" states that:

"Road users bear responsibility for their own safety. Courts will apportion responsibility. Claimants will have to establish that they were entrapped into danger. It is only in exceptional circumstances that individuals may be able to establish a breach of duty of care."

- 4.12 It is therefore very unlikely that a plaintiff will be able to bring about successful legal action against a local authority due to design non-compliance on the existing road network. This is made even more unlikely if properly documented departures from its own or national standards based on a risk assessment process can be evidenced, via suitable records and that the risks to the road user have been adequately considered (this also applies to locations where assessment has resulted in a "do nothing" option). Therefore the introduction of this proposed VRS operational policy will help to demonstrate that the Council is effectively meeting its statutory duties.

5. EQUALITIES IMPLICATIONS

- 5.1 An **Equalities screening** has been completed in accordance with the Council's Equalities Consultation and Monitoring Guidance and no potential for unlawful discrimination and/or low level or minor negative impact have been identified, therefore a full Eqla has not been carried out.

6. FINANCIAL IMPLICATIONS

- 6.1 None at this stage, but funding will have to be secured for any requests prioritised.

7. PERSONNEL IMPLICATIONS

7.1 None.

8. CONSULTATIONS

8.1 As listed below and all comments have been incorporated in to this report.

9. RECOMMENDATIONS

9.1 It is recommended that:

9.1.1 The Regeneration and Environment Scrutiny Committee note the report, comment on and endorse the proposed VRS operational policy prior to consideration by Cabinet.

9.1.2 Officers review the operational policy after 12 months of implementation and advise Members should any changes be considered necessary.

10. REASONS FOR THE RECOMMENDATIONS

10.1 As stated in paras 4.1 - 4.3.

11. STATUTORY POWER

11.1 The Highways Act 1980 and the Road Traffic Act 1988.

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Background Papers:

A copy of the proposed operational policy for Vehicle Restraint Systems is available for inspection by Members and officers in the Members' Library, Penallta House

Appendices:

Appendix 1 Typical examples of VRS systems
Appendix 2 Site Appraisal Process
Appendix 3 Preliminary Screening Process
Appendix 4 Site Risk Categories / Risk Scoring Method