A40 Hardwick Interchange to Raglan Roundabout Safety Barrier (ORA) (2021/22) Operational Risk Assessment

The South Wales Trunk Road Agent (SWTRA) has identified the poor condition of the verge RRS on the A40. Reports from SWTRA indicate the single line of open box beam safety barrier in the east and west bound verge is no longer serviceable and therefore life expired and should be replaced to current standard.

It is considered that procurement of surveys, investigation, assessments and detailed design will take a period of time to complete before construction works can be procured and mobilised, all subject to available budgets.

The need for options to mitigate the risks associated with the defective and non-standard VRS elements measures has been considered for implementation in the intervening period until works to replace the barriers can be completed. The mitigation measures have been risk assessed, costed, and consider the impact on road users.

This report determines that the existing level of risk to road users caused by ineffective safety barriers at the bridge piers is not acceptable but can be reduced by the implementation of measures considered in this report.

Until permanent works to upgrade the central reserve VRS are implemented, measures to mitigate against the existing life expired systems should be implemented. A review of collision data indicates that the likelihood of collisions with the safety barriers at the priers is low. However, the risk of an errant vehicle colliding with any of the piers needs mitigation.

It is therefore recommended that a mandatory temporary speed limit of 50 mph should be implemented initially, supported by a temporary traffic order. Estimated construction costs to install a compliant speed limit signing scheme are in the region of £130,000. This figure assumes that permanent signage is installed to remove any maintenance lability.

It is further recommended that post implementation speed monitoring is carried out to gauge the level of speed limit compliance. The results of this future assessment may lead to supporting the need for speed enforcement measures. This would incur additional costs in the order of £280,000.

It should be noted that the above control measures will not fully remove the risk of incidents and it should be reiterated that permanent works to replace the affected safety barriers should be implemented as soon as possible.

In terms of the permanent replacement of the barriers, site surveys and other investigation works are required to help inform the RRRAP when determining detailed design requirements.