

NATIONAL HIGHWAYS STRUCTURAL RENEWAL PRIORITISATION PROCESS

ABSTRACT Much of the National Highways Strategic Road Network (SRN) was built circa 50 years ago. It is becoming more challenging to keep structures serviceable due to their age, legacy design issues and history of short-term fixes. By 2030, more than 50% of bridges owned by National Highways will be over 50 years old, increasing the risk of unplanned disruption. Without a step-change in renewals investment, network availability will deteriorate with the potential to cause widespread disruption to travel.

One of the National Highways key priorities up to 2040 and beyond is to “Renew our ageing network”- with commitments to accelerate the renewal of ageing assets, particularly large, complex bridge structures which are of significant strategic importance. A number of these structures will require more significant investment, with potentially new off-line replacement structures required.

WSP are working with the National Highways to develop a methodology to prioritise Strategic Structure Renewals for future investment cases. The process will consider information around the cost, value for money and deliverability of key structures renewals, to aid future investment cases for undertaking these works.

The approach and methodology to produce an investment case is currently being developed using the M5 Avonmouth bridge as a pilot study. The bridge is a key SRN structure which may require significant works over the coming decades. This structure will be used as an example of how to approach these types of renewals and to develop an approach to building an investment case for significant structure renewals. The approach will include how to present the key impacts of failure in terms of alternative route choice, how to appraise the benefits / disbenefits and present the economic case for renewal in terms of VfM, options development and deliverability.