

BRIDGEND COUNTY BOROUGH COUNCIL

REPORT TO CABINET

14 MARCH 2023

REPORT OF THE CORPORATE DIRECTOR COMMUNITIES

WELL-MANAGED HIGHWAY INFRASTRUCTURE A CODE OF PRACTICE 2016 -UK ROADS LIAISON GROUP, AND THE COUNTY SURVEYORS SOCIETY WALES (CSSW) RISK BASED APPROACH TO HIGHWAY MANAGEMENT

1. Purpose of Report.

The purpose of this report is to obtain Cabinet approval of a revised safety inspection regime based on the recommendations of the UK Roads Liaison Group update of its code of practice, and an all Wales review and standardisation by County Surveyors' Society Wales (CSSW) to align with an all Wales approach to Highway Maintenance.

2. Connection to corporate well-being objectives/other corporate priorities

2.1 This report assists in the achievement of the following corporate well-being objective/objectives under the **Well-being of Future Generations (Wales) Act 2015**:

Supporting a successful sustainable economy – taking steps to make the county borough a great place to do business, for people to live, work, study and visit, and to ensure that our schools are focused on raising the skills, qualifications and ambitions for all people in the county borough. Maintenance of the public highway ensures that businesses can use the highway infrastructure and will ensure current and future businesses can expect the network to be maintained to commensurate standard with the rest of Wales and hence provide suitable links to the wider economies of Wales and the UK.

Helping people and communities to be more healthy and resilient - taking steps to reduce or prevent people from becoming vulnerable or dependent on the Council and its services. Supporting individuals and communities to build resilience, and enable them to develop solutions to have active, healthy and independent lives. the use of the public highway for walking/cycling ensures that residents have access to local facilities and encourages a healthy lifestyle. Maintenance of the highway asset ensures that the public have confidence in the condition/safety of the network to encourage their use by walking and cycling.

Smarter use of resources – ensure that all resources (financial, physical, ecological, human and technological) are used as effectively and efficiently as possible and support the creation of resources throughout the community that can help to deliver the Council's well-being objectives. The highway asset extends to all parts of the borough and consequently, the Capital and revenue budgets required to maintain these assets are a significant element of the Council's overall budget. The

well managed highway infrastructure code of practice and the CSSW review ensures that the maintenance of the highway is prioritised to ensure highway safety, but also targets the location and appropriate maintenance repairs/standards to provide best practice and efficiency for available funding.

3. Background.

3.1 Bridgend County Borough Council, as Highway Authority, have a duty under section 41 Highways Act 1980 to maintain all publicly maintainable (adopted) highways.

3.2 The highway asset comprises:-

- 799km of carriageway
- 883km of footway
- 24,853 road gullies
- 101 road bridges
- 102 footbridges
- 155 retaining walls
- 103 culverts
- 13 subways
- 20,000 streetlights
- 419km of street lighting cabling
- 46 light controlled junctions
- 283 bus shelters
- 4.2km pedestrian barriers
- 15.6km safety fences
- 35 cattle grids

3.3 A failure to maintain the asset that results in damage could potentially lead to an action against a highway authority in respect of the resulting damage.

3.4 Regular and ad-hoc inspections are carried out on the highway asset by Bridgend County Borough Council. The purpose of such inspection is to ensure, as far as reasonably practicable, that the highway asset is safe for use. A secondary benefit of formal inspection of the highway is to provide Bridgend County Borough Council with a defence under Section 58 Highways Act 1980 against actions and claims brought against the Authority.

3.5 The last significant review of the Code of Practice for Highway Maintenance was undertaken in 2005. The revised code was assessed by the Authority in 2006, and revised procedures and acceptance of the recommendations of the code were approved by Cabinet 12 December 2006.

3.6 A revised Code of Practice (the code) for Highways “Well Managed Highway Infrastructure” was published in October 2016 by the UK Roads Liaison Group. The revised code recommends the introduction of a risk-based approach to all aspects of highway maintenance.

3.7 In order to facilitate a nationally consistent response CSSW reviewed the code of practice and published a risk based methodology for authorities to follow which aligned with the practices set out in the code. This report presents the results on the

initial application of the method specifically to the highway asset in Bridgend County Borough Council.

3.8 Officers have assessed the CSSW Risk Based Approach methodology and associated assessment tools and undertaken a risk-based review of current BCBC highway asset hierarchy, inspection and repair regimes.

3.9 The outcome of the review recognised differences between the existing hierarchy, inspection and repair regimes and the risk-based approach, identifying where changes could be implemented to align with the CSSW methodology.

4. Current situation/proposal.

4.1 Asset Categorisation and inspection frequencies:-

4.2 The 2005 code for well-maintained highways provided the following hierarchy and inspection frequencies for carriageways and footways assessment: -

Carriageways	2005 Categorisation	BCBC Inspection Frequency
	1	Not Assigned
Strategic Route (motorway)	2	Not Assigned
Main distributor	3a	3 Months
Secondary Distributor	3b	3 Months
Link road	4a	6 Months
Local Access Road	4b	12 Months

Footways	2005 Categorisation	BCBC Inspection Frequency
PRIMARY WALKING ROUTE	1	1 month
SECONDARY WALKING ROUTE	2	3 months
LINK FOOTWAY	3	6 months
LOCAL ACCESS FOOTWAY	4	12 months

4.3 The CSSW code of practice review provides the following carriageway and footway classifications and inspection frequencies :-

Carriageway Network Hierarchy Category	Traffic Volume Band (approx.) based on Annual average daily flow	Risk based Frequency
CHSR -- Strategic Route	Based on local importance rather than traffic flow but often in the range >20,000 [30,000 for calculations]	Monthly
CH1 -- Main Distributor	10,000 to 20,000	Monthly
CH2 -- Secondary Distributor	5,000 - 10,000	3 months
CH3 -- Link Road	1,000 - 5,000	6 months
CH4 -- Local Access Road	200 – 1000	Annually
CH5 -- Minor Road	< 200	Reactive

Footway Network Hierarchy Category	Footfall Level (indicative) based on Annual average daily flow	Risk-based Frequency
FHVHU -- City Centre Pedestrian Area -	> 10,000 (15,000 used for calculations)	Not Assigned (19 days)
FH1 -- Town Centre Pedestrian Area	5,000 - 10,000	1 month
FH2 -- Footway Outside Public Facilities	1,000 - 5,000	3 months
FH3 -- Link Footway (between estates / areas)	500 - 1,000	6 months
FH4 -- Housing Estate Footway	< 500	12 months
FH5- Little Used Rural Footway	< 100	12 months

4.4 In specific relation to the risk-based assessment the categorisation for footways has identified that Bridgend County Borough Council does not have any footways with footfall levels equal to City Centre Pedestrian areas. Hence FHVHU (Footway Hierarchy with Very High Usage) is not used in the BCBC hierarchy and identified as Not Assigned.

4.5 Defect intervention levels

4.5.1 The CSSW code of practice risk-based review considered both carriageway and footway defect criteria.

4.5.2 The intervention levels of the risk-based methodology identifies two categories of intervention: safety-critical defects and maintenance defects.

4.5.3 Safety-critical defects require prompt attention because it is assessed as presenting an imminent hazard requiring intervention as soon as possible to remove a potential risk of injury to highway users. Examples of such risks creating a significant hazard could include reported severe potholing, dislodged manholes, gratings and kerbs. If it is not possible to correct or make safe the defect at the time of the inspection, repairs of a permanent or temporary nature should be carried out within the response time of 24hrs.

- 4.5.4 Maintenance defects are those assessed as not requiring immediate intervention but should be repaired in a specified timeframe. The code identifies this as being within 28 days to both prevent them deteriorating into a safety defect and deteriorating to such an extent that additional works or costs are incurred.
- 4.5.6 Details of the specific intervention levels for both safety-critical and maintenance defects is shown in Appendix A.
- 4.5.7 The major determinant in categorising a carriageway defect that is not immediately dangerous is how rapidly it may deteriorate into that state. The regime is designed to provide preventative repair such that defects that are assessed as potentially dangerous to users are minimised. There is also a need to repair defects that may cause property damage.
- 4.5.8 Roads that have been designed to current standards will invariably have a discreet layer of wearing course typically of a depth of up to 45mm. It is common for defects to initiate by a hole appearing in the wearing course. Where the layer below is intact the defect may remain relatively stable i.e. deterioration into a much larger defect less probable than for a defect that has already extended into the lower layers. A defect that is 50mm in depth will typically be deteriorating at both the wearing course and the underlying layer and as such is prone to more rapid deterioration. The risk-based regime is based upon differentiating between defects either side of this threshold.
- 4.5.9 Carriageway defects deteriorate quicker due to the continual usage by vehicles, and hence higher trafficked roads will receive a lower intervention criteria accordingly.
- 4.5.10 In considering appropriate intervention levels for footways it is the case that unlike carriageways deterioration is more likely to be a slower process, unless underlying issues arise. CSSW reviewed sources of information that focused on a risk-based approach and cite the TRL (Transport Research Laboratory) document “Published Project Report (PPR) 171 The Development of a Risk Analysis Model for Footways and Cycletracks”, which considered the probability of an accident happening per person passing a defect. From this exploration a 40mm defect was indicated as the starting point for Safety-Critical intervention level for footways.

5. Effect upon policy framework & procedure rules.

- 5.1 The report does not have any impact upon policy framework and procedure rules.

6. Equality Impact 2010 Implications

6.1 EIA screening – no impact identified

An initial EIA screening has identified that there would be no negative impact on those with one or more of the protected characteristics, on socio-economic disadvantage or the use of the Welsh language. It is therefore not necessary to carry out a full EIA on this policy or proposal

7. Well-being of Future Generations (Wales) Act 2015 implications

- 7.1 A Well-being of Future Generations (Wales) Act 2015 assessment has been

completed. A summary of the implications from the assessment relating to the five ways of working is as follows:

- **Long-Term**

The scheme seeks to maintain the highway network, in accordance with current guidance to a consistent level with all Highway Authorities within Wales.

- **Prevention**

The scheme seeks to provide ensure as far as reasonably practicable that the highway network is safe for the use of the public/highway user.

- **Integration**

The provision will ensure a consistent standard of maintenance across the Borough for residents which may provide an economic and social benefit.

- **Collaboration**

The scheme has been supported by County Engineers and Surveyors Society who represent all local authorities in Wales and is consistent with the policies implemented by all highway authorities in W'ales.

- **Involvement**

The policy complies with National guidance and is not subject to consultation with the public. The standards set are in alignment with a consistent approach by all highway authorities in Wales and Bridgend County Borough Council officers' input into the CSSW assessment.

8. Financial Implications.

8.1 Whilst the revised code does have implications for additional inspections, it is considered that the current staffing structure will be able to manage the increase in frequencies

8.2 It is not envisaged that the revised frequencies and intervention criteria will have an increase demand on the levels of repair works required on footways and carriageways over current resources, however this will be monitored.

9. Recommendation.

9.1 It is recommended that Cabinet approve implementation the new safety inspection frequencies and defect intervention criteria.

Janine Nightingale
Corporate Director – Communities
February 2023

Contact Officer: Kevin Mulcahy – Group Manager Highways & Green Spaces

Telephone: 01656 642535

E-mail: kevin.mulcahy@bridgend.gov.uk

Postal Address: Bridgend County Borough Council, Communities Directorate, Angel Street, Bridgend, CF31 4WB

Background documents: None