

MEETING:	ENVIRONMENT SCRUTINY
DATE:	23RD NOVEMBER 2009
TITLE OF REPORT:	HIGHWAY MAINTENANCE STANDARDS
REPORT BY:	HIGHWAY NETWORK MANAGER

Wards Affected

County-wide

Purpose

To update the Committee on current highway maintenance standards and the plans that are in place to improve the long term condition of the highway network and better satisfy the needs and desires of Herefordshire's communities in regard to roads maintenance.

Key Decision

This is not a Key Decision.

Recommendation

THAT subject to any comments the Committee wish to make the Committee note the report.

Key Points Summary

- The highway network is a vital and highly visible community asset with an estimated replacement value in excess of £2.5 billion.
- It is clear that the standards of our roads and footways matter to the people of Herefordshire.
- In total 1048 km of our county network has been identified as requiring maintenance.
- The programmes of work necessary to address this are being developed through Transport Asset Management Planning.
- The Council has set our service provider Amey Herefordshire clear targets for achieving the required serviced standards.
- A best value approach to operational standards is being used and the level of supervision needed to achieve a consistent standard in both our own works and those of others who may excavate our roads has been deployed.

Alternative Options

- 1 None.

Reasons for Recommendations

- 2 The report describes current highway maintenance standards and the plans that are in place to improve the long term condition of the highway network in line with the needs and desires of Herefordshire's communities in regard to roads maintenance. Providing a baseline against which future performance in this area can be evaluated.

Introduction and Background

- 3 The Environment Scrutiny had identified, as part of their work programme, the need for a report on highway maintenance standards to establish a base line for future comparison.

Key Considerations

Background

- 4 The highway network is a vital and highly visible community asset which supports the local economy and contributes to the character and environment of the County. It is by far the single most valuable physical asset that the Council controls, with an estimated replacement value in excess of £2.5 billion.
- 5 It is clear that the standards of our roads and footways matter to the people of Herefordshire. This was made clear through the public consultation undertaken as part of the development of our Transport Asset Management Plan (TAMP). With over 4,500 responses to our consultation, customers clearly indicated what they felt was important and what was currently being delivered to a satisfactory standard. Limits on funds will undoubtedly mean that we cannot match all customer aspirations and that the first duty has to be to fulfil all our statutory obligations. Where the options to introduce a higher standard of service do exist, investment choices have been, and will continue to be, informed by the desires of our customers.
- 6 The public consultation concluded that our customers want safe and reliable journeys delivered through:
 - Safe roads, free from defects and obstructions including standing water
 - Quick and reliable journeys and free traffic flow
 - Investment and improvement in Street scene particularly in areas where customers live and shop
- 7 The progress on the TAMP was reported to this committee on the 25th February 2008.
- 8 Supporting the TAMP development and the Council's objectives as set out in the Local Transport Plan (LTP) is the Highway Maintenance Plan (HMP), This plan, produced in 2007, takes account of changes to both the national code of practice

for maintenance management “Well Maintained Highways” and our own local objectives. It is this plan that governs the operational standards that exist for the maintenance of our highways.

- 9 We are not the only ones arranging for or carrying out works to the public highway. Utility companies, in fulfilling their statutory obligations to the public also excavate and reinstate the highway. The standards for both the reinstatement and timing of streetworks are governed by New Roads and Street Works Act, the Traffic Management Act and the associated codes of good practice and agreed national standards for the reinstatement of the highway.

Current Condition and Targets

- 10 Since 1st September Amey Herefordshire (AH) has assumed the responsibility for the management of streetworks and the delivery of highway maintenance, as part of the delivery of an ‘end to end’ highway service.
- 11 Nationally, there is a history of under investment in the highway asset and as a result there has over time been a shift to a predominantly reactive, rather than pro-active, response to defect management in all highway authorities. The challenge for highway authorities is to reverse this trend, establishing a maintenance regime that will represent best value in whole life terms.
- 12 As an illustration of the maintenance need on the 1st November 2009 we have more than 5900 potholes defects registered on the highway inspection system.
- 13 Our highway condition assessments, conducted over the summer of 2009, identified that our Principal Roads (Total length 353km, excluding recently de-trunked A40 and A465) has 5% of the network (18km) that exceeds the national intervention level and as such is deemed to require maintenance. A further 21% of the network - 74km merits further investigation, here the need for planned maintenance is imminent in order to halt deterioration. The remaining 74% of the network is generally in good condition.
- 14 For the non-principal classified roads (B and C roads with a total length of 1383km) we have 9% deemed to need maintenance (125km), 35% requires investigation (484km) and the remaining 56% is generally in good condition.
- 15 In 2007/8, it was reported to Environment Scrutiny Committee that the then Director of Environment had reduced the road maintenance revenue budget by £909,000. This was considered necessary to respond to a standstill budget and significant budget pressures within the Directorate. This reduction was partly mitigated by an increase in capital funding for highway maintenance through the Local Transport Plan during that year and in subsequent years. In recognition of the need to focus on improving the condition of main roads within the County, the Council has prioritised investment in highway maintenance to improve the condition of principal and non-principal classified roads within the county. However, this has meant that maintenance of unclassified roads has received a lower priority for investment and as a result improvement in the condition of these roads has not kept pace with improvements in recent years on the classified road network.
- 16 The unclassified road network (Total length 1507km) had 23% requiring maintenance (347km).

- 17 In total 1048 km of our county network has been identified as requiring maintenance.
- 18 As part of the revised service delivery partnership 'MAC' arrangements with Amey Herefordshire, the Council has set enhanced road condition targets and by next year our operations will have improved the road condition on our A roads, to a level that only 5% of this network should be considered for maintenance, only 8% of our B and C roads, shall require maintenance and our unclassified road network will have its overall condition stabilised at 17% by length in need of maintenance.

Approach to Improving Condition

- 19 The programmes of work necessary to achieve these targets are being developed through sound asset management planning. Asset management identifies the optimal allocation of resources for the management, operation, preservation and enhancement of the highway infrastructure to meet the needs of current and future customers. Considerable benefits can be derived from the management of assets in this way. The development of asset management creates the foundation for a best practice environment, and good asset management will ensure that the need for investment is truly understood and that the performance and standards that can be attained for that investment are realised. Ultimately this approach enables us to make key decisions on the levels of service and performance with regard to the County's roads, this with the full understanding of the way in which we will need to invest the available funds to secure the very best outcomes for our customers.
- 20 To achieve this Amey Herefordshire are conducting an extensive survey of the highway asset. This is to update and expand our inventory so that its content and accuracy can support asset management.
- 21 Amey Herefordshire have also undertaken a review of past service delivery methodology and will be operating a more efficient regime in 2010. Amey Herefordshire will adopt a countywide approach to network management placing resource where the need is greatest and operating a three year rotating strategy for drainage and preparatory maintenance, surface dressing and resurfacing. The emphasis will be placed on the carriageway running surfaces ensuring a concentration on maintaining the current asset. The benefits of this will be:
- A reduction of cost by better planning for sub-contractors.
 - Reduction in carbon footprint
 - Reduced operational downtime through travelling leading to reduced cost
 - More coverage for same budget
 - Better planning of works, resulting in reduced disruption to the travelling public
 - A 'Visual' impact
- 22 Clearly there will still be a need for routine maintenance services (potholing and the like) along with a reactive response to hazardous defects. The Council has set Amey Herefordshire the target of achieving the following serviced standards by the 30th June 2010:
- 100% defects that represent an immediate or imminent hazard to the travelling public will be responded to within 2 hours and made safe within 24

hours. 100% of these defects will be permanently repaired within 28 days of initial report.

- 95% defects that, if they remain untreated could become a hazard will be repaired 28 days of initial report. 100% within 2 months.
- 95% of defects that present a lower risk, will be repaired within 2 months of report, 100% within 3 months.
- All category of other defects identified or reported will be either repaired or incorporated into known programmes of work within 6 months.

- 23 Also, it should be recognised that it is not our aim to achieve a level of road condition, where 0% of the network requires maintenance. Technically, the ideal position would be one where the annual maintenance need is matched by the annual investment in maintenance. However, this view does not take full account of the needs and desires of our customers, who in some circumstances do not want a 'technically' perfect running surface, for example, many rural access lanes, should have their character maintained, enhancing their use as a recreational facility. In other cases, customers do want the standard of the road to be maintained at an enhanced level, such as at known or perceived accident sites. We also aim to account for these issues through our asset management planning.

Operational Standards

- 24 The specification for the highway repairs delivered as a result of our routine highway inspections and/or our response to customer inquiry, are established in our operational standards manual. The operational standards manual supports the requirements of the HMP. By way of example, for pothole repair the manual identifies four basic options for the type of repair. The first is a patch repair, with the area immediately around the pothole having been cut out and 'squared up' prior to filling with hot tarmac. The second involves cleaning out the pothole and then filling with hot tarmac. The third involves a process called jet-patching, where a bitumen/stone mix is effectively blasted into the pothole and the final type of repair is for emergency use only, this involves the filling of the pothole with a cold macadam product. In all cases the specification calls for the material to be properly compacted using correct compaction plant.
- 25 Given the volume of pothole repairs undertaken, the underlying need for this type of repair and the actual construction of much of our 'evolved' highway network (meaning that the road was once an un-surfaced track, and has had repeated surfacings over decades to arrive at its current construction, as opposed to having been designed to be what it is), the decision has been taken to use 'cutting out' predominantly on A and B roads, with potholes on the rest of the network being repaired using the second method described above. This approach represents, in most circumstances, better value. Potholing cannot be seen as a substitute for planned patching, surface dressing or resurfacing works, through using this approach we have the ability to address the volume of defects needed to manage the risk associated with potholes across all of our County's roads. This in light of the available resources.
- 26 The pothole repairs as specified do represent a better value approach in most circumstances, however, these repairs can and do fail. Failure can be either as a result of poor workmanship, the limited strength of the surrounding highway structure, high traffic loadings which are at odds with the character/construction of the road, an underlying problem (such as poor drainage) or the fact that the

road has actually reached the end of its useful life. Also, a pothole repair however good, does itself have a life expectancy and it is the planned patching, surface dressing and resurfacing works which truly extend the life of carriageways, footways and cycleways.

- 27 In order to address the potential for poor workmanship Amey Herefordshire are evaluating new methods of working (and equipment), refocusing the workforce and targeting training and supervision improvements.

The Impact of the Statutory Undertakers' Works on the Condition of our Highways

- 28 As stated we are not the only ones working on the roads, in the last year 5700 (October 2008 to October 2009) trenches have been cut in our highways to enable the repair, connection and/or improvement of mains supplies and sewers. The Transport Research Laboratory (TRL) have carried out research on the impact of trenches on the life expectancy of roads (TRL, Published Project Report PPR386), they conclude that 'the median service life reduction of the pavement structure (i.e. ignoring the surface or visual condition) is estimated to be 17%' , they go on to conclude that the total additional maintenance costs to the English highway authorities, as a direct result of this trenching, is £70.1 million, which equates to 7.7% of the capital expenditure on the maintenance of carriageways and footways. They also state that this is in fact an underestimate of the full impact of trenching on highways, as their research took no account of the potential need for more costly treatments when maintaining a road that has trenches vs one that does not. For Herefordshire this percentage equates to approximately £0.6 million. Finally, this research assumes that the trenching work is carried out to specification.
- 29 The Council cannot prevent the statutory undertakers from maintaining and improving their plant, nor would we want to disrupt the supply of services to our communities. However, the Council through Amey Herefordshire has an important role in ensuring that whenever our roads and footways are excavated, they are reinstated to a correct standard.
- 30 Current inspection and supervision standards in Herefordshire do conform to the requirements of the New Roads and Street Works Act and the overall performance of the statutory undertakers is comparatively good. The level of non-conformities routinely identified through the statutory levels of random inspection are low. However, as with potholes, poorly reinstated trenches do occur and it is important that these are identified and action taken against the responsible undertaker before the 'maintenance period' on the work expires and the Council as the highway authority assume full liability for the structural integrity of the reinstatement.
- 31 To enhance the Council's management of the statutory undertakers' works, Amey Herefordshire are arranging for external training to be given to all highway inspectors. This will ensure that all can consistently recognise when reinstatements have not been carried out to the standards required. Amey Herefordshire will increase monitoring of the utilities and will ensure that there is a drive to increase standards of repairs beyond that currently delivered. By working together with the utilities Amey Herefordshire will explore the possibility of financial contribution towards full resurfacing of areas where high levels of reinstatement works are planned. Through regional meetings they will ask the utility companies to provide their long term (five year) programmes to allow

provision to be made in our long term highway maintenance programmes for the impact of the statutory undertakers' works.

Conclusions

- 32 Through Amey Herefordshire the Council will see a step change in the delivery of highway services. This will result in a sustained improvement in the condition of our roads and footways. This will come about through an improved customer focus, integrated working and sound asset management planning.
- 33 The approach also encompasses improvements in the supervision of others who excavate our highways, this to ensure that poor standards on the part of others are not unduly accelerating any deterioration in the highway asset.
- 34 The strategic priorities do remain as improvement in the condition of the Principal and Non-Principal Classified Roads. This being delivered through a countywide and integrated approach to service delivery through Amey Herefordshire.
- 35 The aim of the Unclassified Road network is to stabilise its overall condition.
- 36 The investment needed and the options that will exist regarding levels of service together with the programme of works that will achieve this will be developed further by the Council with Amey Herefordshire through Transport Asset Management Planning.

Community Impact

37. The highway network is a vital and highly visible community asset which supports the local economy and contributes to the character and environment of the County. The quality and usability of our highways matter to the people of Herefordshire.

Financial Implications

38. None as a direct result of this report.

Legal Implications

39. Herefordshire Council, as the Highway Authority for all roads in the County except Trunk Roads and Motorways, has the duty to maintain the highway in line with its character and usage. This duty is set in detail in the Highways Act 1980.

Risk Management

40. The means by which the risks associated with the maintenance of the public highway are managed are set detailed in the TAMP and the HMP referred to earlier.

Background Papers

- The Operational Standards Manual