

## APPENDIX 2

# Rotherham Metropolitan Borough Council Highway Asset Management Strategy

## 1. Introduction

The Council is responsible for maintaining highway assets within the Rotherham Metropolitan Borough boundary, with the exception of those maintained by the Highways Agency. The highway network is the most valuable community asset for which we are responsible, it is therefore essential that it is well managed and maintained.

It is essential that the management of such a valuable asset is carried out in a systematic way, which takes a long term view of our highway assets, our corporate objectives, maintenance requirements, customer expectations, service risks and funding availability.

The UK Government recognises that efficiencies can be made by employing asset management techniques and by applying the following principles:

- A strategic approach over the long term to manage the highway network
- Meeting stakeholders' needs
- A systematic approach
- Optimal allocation of resources
- Managing expenditure over the asset lifecycle
- Meeting performance requirements in the most efficient way
- Managing Risk
- Operational Delivery

By adopting these principles we are able to set long term objectives to manage and maintain our highway assets; we will:

- Collect detailed asset information to make informed decisions for works prioritisation
- Develop and implement long term maintenance works programmes
- Provide levels of service that support corporate priorities and customer expectations
- Prioritise roads that would benefit from the use of cost effective treatments (such as surface dressing, or micro asphalt) to prolong the life of our carriageway assets
- Where feasible carry out permanent first time repairs to potholes
- Installation of energy efficient Street Lighting lanterns taking into consideration whole life costs

By achieving the above objectives will enable service improvements outcomes for the highway network:

- Provide a safe highway network for users
- Improved customer satisfaction
- Maximise funding to increase the length of network repaired
- Reduced number of properties that are at risk of flooding
- Delivered significant energy savings through the use of advanced technology

## **2. Highway Asset Management Strategy**

The purpose of the Asset Management Strategy is to outline how the service will approach the task of managing our most valuable and important infrastructure.

This strategy should be read in conjunction with the council's Highway Asset Management Policy and further detail can be found in our Highway Asset Management Plan (HAMP). The HAMP is our detailed working document containing asset data management, lifecycle plans, performance information, whole life costing principals, stakeholder expectations, statutory requirements and funding availability.

### **Strategic Framework**

This strategic document together with the Highway Asset Management Policy sits within a wider framework and forms a link between our Corporate Objectives, Directorate Priorities and Operational Plans.

The benefits of such an approach are:

- A clear methodology for linking strategic objectives and priorities with levels of service
- A clear understanding of the extent and condition of the infrastructure
- A better ability to predict the levels of funding required to deliver desired levels of service and the potential impact of funding constraints
- A better understanding of risk and how it can be mitigated
- A consistency of approach which assists in managing the expectations and experience of service users



The Asset Management Policy, Strategy and HAMP are key documents relating to the council's highway assets are aligned to the council's objectives, the goals and objectives of the Local Transport Plan and other national and local requirements and guidance.

### **3. Asset Management Approach**

#### **3.1 Data Management and Information Systems**

Asset inventory information is the foundation on which asset management processes are built. Accuracy and completeness of inventory and condition data, and the management of associated systems is essential. The upkeep of relevant, up to date information is the key to effective management of the network; for a data management system to be effective it is essential that priority is given to its development, operation and upkeep.

The Council has developed detailed inventory data for the following major asset types:

Asset Type	Information System
Highway Network	Symology Insight - United Kingdom Pavement Management System (UKPMS)
Drainage	MapInfo Database
Street lighting	Deadsure
Structures	Symology Insight (UKPMS)
Traffic Systems	Traffic Systems spreadsheet

Asset data is collected in-house by trained staff with the appropriate system being regularly updated. Continuous condition appraisal is carried out by those responsible for the individual asset groups.

The size and value of our major highway assets are as follows;

Asset Type	Quantity	Estimated Gross Replacement Cost (£m)	Depreciated Replacement Cost (DRC) (£m)
Carriageways	1,143 km	£1,257m	£1,202m
Footways	1,689 km	£219m	£192m
Drainage	45,500 chambers, gullies etc. and 35 km of drainage pipes/chambers	Included in carriageway costs	Included in carriageway costs
Street Lighting/Furniture	35,216 street lights columns	£72.5m	£67m
Structures	185 structures consisting of bridges, culverts and underpasses	£164m	£157m
Traffic Signals	107 traffic signalised junctions and pedestrian crossing	£13.5m	£7m
	Total Cost	£1.726bn	£1,625bn

Good asset information also supports the calculations required for Whole of Government Accounting (WGA) which has been introduced for highways local government accounting. There is a phased introduction of WGA moving away from the historical costing method. The figures required are the Gross Replacement Cost (GRC), which represents the value of replacing assets as new and the Depreciated Replacement Cost (DRC) which represents the value of replacing assets in the current state of repair or age. For this to be achieved there is a clear need for accurate and detailed inventory information and performance data. This requirement supports asset management by providing an improved understanding of network deterioration and combining that with the levels of service to be achieved.

Rotherham embraces this approach and has developed processes for collating the data needed to meet the WGA requirements, whilst developing good asset management practices.

### **3.2 Performance Management**

Service performance monitoring is coordinated by the Council's Corporate Performance and Quality Team, key performance indicators are reviewed quarterly and reports submitted to the Senior Management Team. The Council's performance management framework supports the asset management strategy by having a systematic approach to measuring performance.

Using our Corporate Priorities as a lead, we are able to establish and define what level of service we need from each asset taking into consideration customer expectations. A Corporate Priority for Rotherham is to ensure all areas of Rotherham are safe, clean and well maintained, with a Directorate Priority to make sure roads are safe to use and that the condition is as good as or better than the national average.

We recognise the importance that Rotherham's residents place on the condition of our roads. The results from the National Highways and Transportation (NHT) customer satisfaction survey for Rotherham 2014, show that the conditions of roads is the item that the residents of Rotherham think '*is most in need of improving*' and is also considered the '*most important*' to them. This information is available to the general public via the NHT website: <http://nhtsurvey.econtrack.co.uk/Default.aspx>

When preparing our annual programme of works, we carefully review and consider all customer enquiries, taking action to resolve any issues where reasonably practical.

We also recognise the importance of maintaining our strategic routes to avoid a negative impact on Rotherham's economy, which aligns with the Sheffield City Region Local Transport Plan's goal, which is to 'Support Economic Growth by ensuring our highway networks are well maintained to keep people and goods moving effectively'.

To achieve our Corporate Objective and return these strategic roads to a better than the national average condition a capital investment of £5m between 2008/2009 and 2010/2011 was carried out. Revenue funding is now targeted to maintain this level of service.

Similarly, the Non-Principal network is also in a relatively good condition due to an investment of £3m between 2011/2012 and 2013/2014.

Further investment is now planned to stem the deterioration in the Unclassified network with a £5m capital investment between 2015/2016 and 2016/2017.

In addition, our levels of service take account of statutory duties and the management and mitigation of risk both to the service user and the authority. As the Highway Authority we have a duty under the Highways Act 1980 to maintain our roads. The Council has developed and implemented a detailed Code of Practice for Highway Inspection and Maintenance which discharges this duty. This information is available on the Council web site.

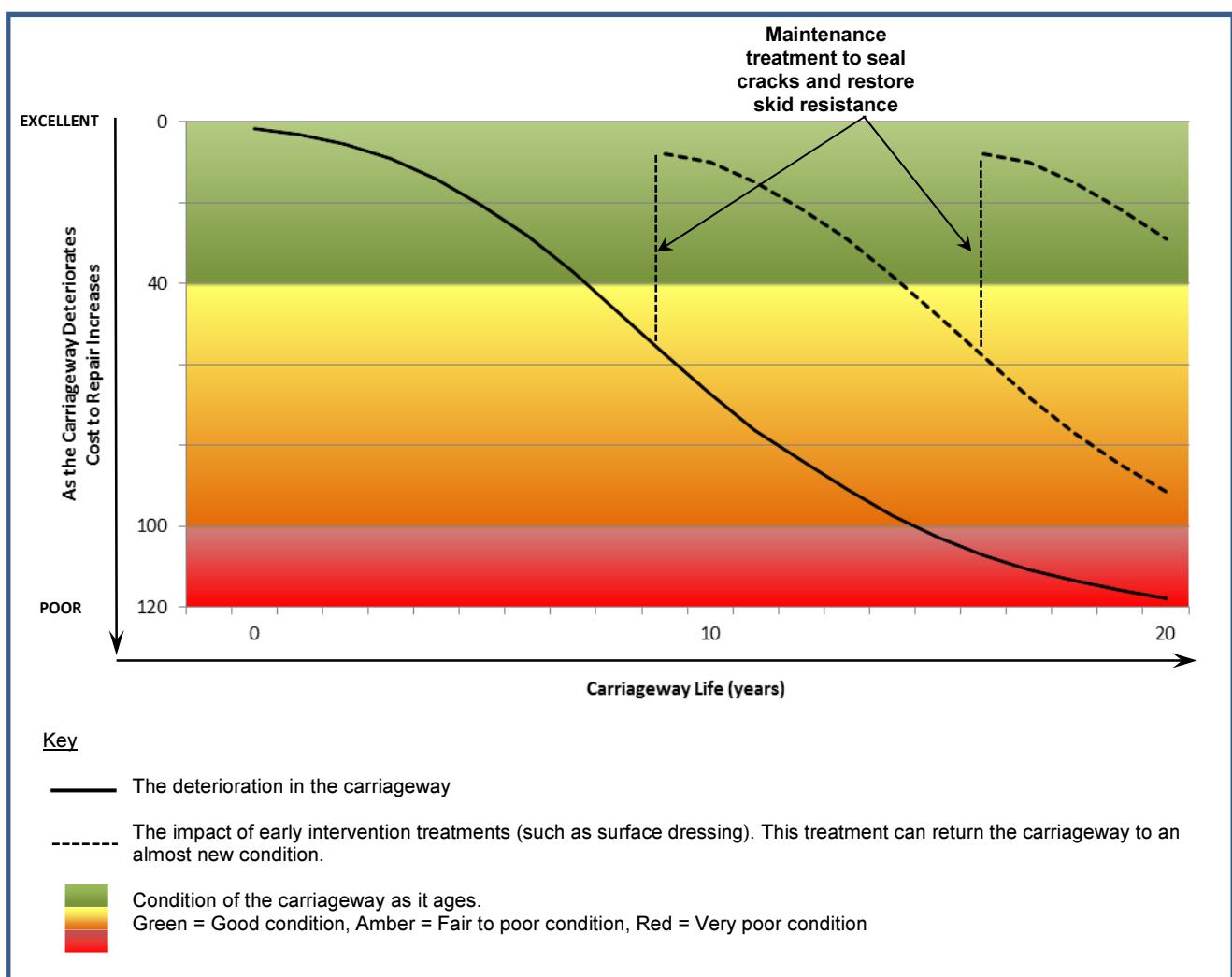
### **3.3 Asset Lifecycle Planning**

Lifecycle planning is a technique which enables us to monitor and anticipate the future condition of assets and to know when we need to maintain or replace it. Through detailed

knowledge of the size, safety, condition and value of our highways asset enables us to take into consideration whole life costs when maintaining our assets.

Lifecycle planning tools have been developed which enable the development of work programmes which make best use of the available funding in meeting long-term objectives, mitigating the risk of failure by allocating funds to where they will be most beneficial. It must be noted that this type of allocation moves away from a more traditional “worst first” approach and targets work programmes at those parts of the infrastructure which present the greatest risk and where timely treatment can achieve the most beneficial whole of life cost. This approach is advocated the Audit Commission, Going the Distance Report 2011. This is illustrated in the diagram below.

### Carriageway Lifecycle Journey



The Council also uses lifecycle planning to develop investment strategies to deliver an agreed level of performance or, where funding becomes constrained, a prediction of the effect of particular funding scenarios on the levels of service that can be delivered.

By using this approach enables services to be delivered as effectively as possible, allows a clear and logical allocation of resources to those areas which will contribute most to the

overall objectives and priorities of the Council and allow an assessment to be made of the residual risk.

### 3.4 Risk Management

Risk management is used to effectively manage potential threats to our organisation achieving our objectives and priorities. The identification of risk and its management is an important component of highway asset management. It is therefore essential to have an understanding of assets that are critical to the functioning of the network.

Risks are identified on the Council's EDS/Streetpride risk register and are rated according to their impact and likelihood, providing an indication of the risk prioritisation. Risks are assessed in terms of their financial impact, health and safety implications, reputation and business service impact on the Council. Risks that have been classified as high require control measures to reduce the risk to an acceptable level. Risks that have been classified as low require no further controls other than monitoring and periodic review.

Our asset management principles encourage risk management to take into account risk from condition of assets and increase the potential for 'spend to save' investment based on business risk. A better understanding of asset deterioration and failure rates, provide an evidence base to support risk-based decision making. For example, where a footway or carriageway has potential for high costs of liability claims, investment to reduce the risk of these claims may be a cost effective option. Conversely, Scanner condition surveys may indicate a carriageway has failed but no liability claims may have ensued. This may indicate that resources would be better focused on other roads.

### 3.5 Decision Making Process and Works Programmes

Each of our major asset groups has a detailed decision making process which takes into consideration;

- Asset condition
- Safety
- Whole life costs
- Stakeholder Interest
- Support Corporate Objectives
- Coordination

By the use of robust evidence based decision making processes we are able to optimise assets by the appropriate prioritisation of work within the available funding.

One significant element of the decision making prioritisation process is the potential for schemes to be coordinated across asset groups, for example; resurfacing a road in conjunction with a road safety scheme. Such alignment of schemes within the works programmes is key to optimising available funding across Services.

To facilitate this Highway Asset Managers meet regularly to review works programmes for each of the asset groups. Locations that appear near to the top of more than one of the priority lists are to be considered as to whether a joined up scheme may be feasible.

Forward Works Programmes have also been developed for the next three years. They clearly illustrate what, where and when schemes are to be undertaken. This longer term approach supports coordination of works and our longer term financial planning.

An annual report is produced for Cabinet Member consideration for the forthcoming major highway schemes.

#### **4. Review Process**

The strategy will be reviewed annually taking into consideration Corporate Priorities, Government legislation and funding. Associated amendments and updates will then be carried out to the framework documents, such as the Highway Asset Management Plan.

#### **5. Communicating the Strategy**

This strategy will be published on the Council's website ([www.Rotherham.gov.uk](http://www.Rotherham.gov.uk)) along with the associated highways asset management policy and plan.