

REPORT TO: CITY DEVELOPMENT COMMITTEE - 26 SEPTEMBER 2011

REPORT ON: ROAD ASSET CONDITION AND BACKLOG

REPORT BY: DIRECTOR OF CITY DEVELOPMENT

REPORT NO: 430-2011

1 PURPOSE OF REPORT

- 1.1 To advise Committee of the current position and the background to the Statutory Performance Indicator used to measure carriageway condition as reported to the Scrutiny Committee.
- 1.2 To advise on the condition of the adopted road asset within Dundee City Council and identify the investment required to bring the asset up to an appropriate standard.

2 RECOMMENDATION

- 2.1 It is recommended that Committee notes the contents of this report and take account of this when setting future budgets.

3 FINANCIAL IMPLICATIONS

- 3.1 There are no direct financial implications arising from this report.

4 BACKGROUND

- 4.1 Reference is made to Article VIII of the Planning & Transport Committee of 8 September 2008 where Committee was advised of the position at that time and the background to the change to Statutory Performance Indicators used to measure carriageway condition. Reference is also made to Article IV of the Planning & Transport Committee of 13 March 2006 which outlined a study report produced by Audit Scotland in November 2004 which identified the maintenance backlog associated with all road assets both nationally and within Dundee City Council. This study established that there was a backlog of £1.7 billion for the whole of Scotland, whilst the backlog for Dundee City Council for all road assets was £50.3 million with the backlog for adopted carriageways alone sitting at £18 million.
- 4.2 In February 2011, Audit Scotland issued the report 'Maintaining Scotland's Roads: A Follow-up Report'. The report examined progress against recommendations from the 2004 report as well as looking at changes in the condition of the road network since 2004, what was currently being spent on road maintenance and how road maintenance is being managed.
- 4.3 The information reported in the audit was collected between March and October 2010. The report did not examine the impact of winter 2010/11 on road condition or road maintenance budgets. The key messages of the report were:
 - Despite high levels of overall spending on public services the condition of Scotland's roads worsened over the past six years. In 2010, only 63 per cent of roads were in an acceptable condition and the cost of the maintenance backlog increased to £2.25 billion, £1 billion more than in 2004.

- Limited progress has been made to improve road maintenance since the last report on this in 2004. While councils are working together in a drive to be more efficient, it is important that they all develop road asset management plans and generate better information on costs and performance.
 - During the financial year 2009/10, £654 million was spent on maintaining Scotland's roads. Transport Scotland estimated it would need to spend £275 million to get trunk roads into a 'steady state' whereby a fixed amount of roads needed structural maintenance each year while the Society of Chief Officers of Transportation in Scotland estimated that councils needed to spend an additional £45 million each year for the next decade to maintain roads in their existing condition.
- 4.4 The report contained a number of recommendations for the Scottish Government, Transport Scotland and Councils. In particular, the Scottish Government should consider a national review of how Scotland's road network is managed and maintained and Transport Scotland and councils should work together to consider all opportunities for achieving more with the resources currently available, by exploring new ways of working such as service reconfiguration, partnership working and pooling and flexible use of resources.
- 4.5 These are all areas that Dundee City Council through the Roads Maintenance Partnership with Tayside Contracts and the Street Lighting Partnership with Tayside Contracts and Perth & Kinross Council are actively delivering and seeking continual improvement.
- 4.6 Following Audit Scotland's report a National Review looking at how the road network is managed and maintained, including how the Scottish Government can work better with local authorities, and also what can be learned from international roads management practice is currently underway. The outcome of this is due to be reported later this year and once considered, a report will be brought to Committee.
- 4.7 The Statutory Performance Indicator (SPI) used for carriageway condition is derived from the results of the Scottish Road Maintenance Condition Survey (SRMCS) carried out annually for all Scottish Local Authorities. The survey uses data collection techniques that aim to measure in a consistent way, the condition of a representative sample of roads in each Local Authority area. The condition indicator is supplied to each Authority as the percentage of the road network that falls below two thresholds. The lower threshold, categorised as Red, designates areas of the network requiring immediate treatment while the upper threshold, categorised as Amber, designates areas requiring further investigation to determine whether treatment should be considered. The Statutory Performance Indicator reported annually to Audit Scotland is based on the combination of the Red and Amber values for the overall network.
- 4.8 The SPI, properly known as the Road Condition Indicator (RCI), is calculated from survey data collected every 10 metres from vehicle mounted sensors that measure specific characteristics of the road surface. The data measurements are then compared against threshold levels to determine how much the individual characteristics contribute to the overall RCI and these are then aggregated up to produce the RCI for the section of road as well as the overall network.
- 4.9 Each year the SRMCS covers a sample of each Local Authority's road network, the size of which is determined by the different road classifications and is considered to

be representative of the whole network. The following table details the percentage of each class of road surveyed.

Road Class	Percentage to be Surveyed
A	100%
B	50%
C	50%
Unclassified	10%

- 4.10 Since only the A class roads have 100% survey coverage, the Network RCI reported as the Statutory Performance indicator is calculated by combining the survey data for the current year and the previous year's survey. This has the effect of smoothing out any large variations that may be introduced from only surveying a sample of the network, particularly on the unclassified roads where the annual sample size is small.
- 4.11 The following table shows the values of the rolling 2-Year RCI for Dundee City Council. Also shown are the average RCI values for the city authorities ie Aberdeen, Dundee, Edinburgh and Glasgow taken as a group as well as the Scottish Local Authority's average.

2 Year Rolling Network RCI				
	2006/2008	2007/2009	2008/2010	2009/2011
Dundee	25.2	23.2	25.6	28.0
City Average	28	27	30	33
Scottish Average	37	34	36	38

- 4.12 From the information presented, it is clear that the RCI value has risen significantly over the last 12 months. However this trend is not unique to Dundee as 26 out of the 32 Scottish Local Authorities have results exhibiting a similar increasing trend signifying a general deterioration of their road network. Dundee City Council's results are consistently better than the average for the city authorities as well as those of the Scottish LA average.
- 4.13 The severe winter conditions experienced during 2008/09 and 2009/10 have no doubt contributed to the general increasing trend of RCI values across most of the Scottish Local Authorities. In the case of Dundee, this is despite significant additional capital funding being made available for road maintenance schemes during these financial years. Although the additional funding has continued, the third severe winter in succession will have similar effects on the road network and we should therefore expect to see an increase in the RCI when the new survey results are reported towards the end of 2011.
- 4.14 The State of the Scottish Local Roads Network was published in June 2010 and reported on work commissioned by SCOTS (the Society of Chief Officers of Transportation in Scotland) to determine the carriageway maintenance backlog in Scotland and for each local authority. The report confirmed the steady decline in the condition of Scotland's road network and an overall shortfall of funds to maintain the network at its current condition. The report identified that there was a carriageway maintenance backlog in Scotland of £1,539 million.
- 4.15 For Dundee City Council, the modelling carried out based on the 2007/09 SRMCS results indicated that the headline backlog figure for carriageway maintenance alone was approximately £18.4 million. Based on the 2009/11 SRMCS results, this has increased to £22.1 million. Other scenarios modelled suggest that in order to

maintain Dundee City's adopted road (carriageway) network at 2010 conditions i.e. at a steady state, an annual budget of £2.3 million is required in comparison to the £1.563 million spent that year. (Note that footways are excluded from this survey and it is considered that the backlog of £5.8 million for footways reported in 2006 remains valid).

- 4.16 Through a combination of capital and revenue funding, the historic and budgeted investment in the carriageway asset is noted below:

Carriageways

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Capital	£0.3m	£0.34m	£0.825m	£1.375m	£1.563m	£1.413m	£1.5m
Revenue	£0.49m	£0.58m	£0.66m	£0.43m	£0.5m	£0.5m	£0.5m

Inflation – Office for National Statistics – Coated Roadstone Price Index

Date	2005 average	2006 average	2007 average	2008 average	2009 average	2010 average
Index	100	108.2	113.8	130	140.8	149

- 4.17 The following table gives a break down of the RCI for 2009/2011 by road classification.

Road Class	Network (km)	Red %	Amber %	RCI	Green %
A	48.1	3.68	17.11	20.79	79.21
B	14.9	3.04	15.70	18.74	81.26
C	119.8	2.02	14.36	16.38	83.62
U	361.4	5.56	27.67	33.23	66.77
All	544.2	4.55	23.48	28.03	71.97

- 4.18 These results show a small improvement on A, B and C class roads in comparison with previous years. This is not entirely unexpected, bearing in mind the tendency to favour the busy A, B & C Class roads that form the principal city transport arteries when compiling annual road maintenance programmes. The condition of Unclassified roads which make up 66% of the adopted road network however continues to be the major contributor to the overall RCI value with 33% (previously 29%) of the U-Class network in need of either immediate maintenance or further investigation.
- 4.19 The evidence from these Scottish Road Maintenance Condition Survey results indicates that significant levels of funding for road maintenance are still required not only to improve the condition of the road network but to maintain it at the current condition. While the increased funding made available in the 2008-2012 Capital Plan is being well utilised, the trends shown in the RCI values and the SCOTS report suggest that higher levels of funding will be required to arrest the deterioration and significantly improve the condition of the overall road network.

5 POLICY IMPLICATIONS

- 5.1 This Report has been screened for any policy implications in respect of Sustainability, Strategic Environmental Assessment, Anti-Poverty, Equality Impact Assessment and Risk Management. There are no major issues.

6 CONSULTATIONS

- 6.1 The Chief Executive, Depute Chief Executive (Support Services) and Director of Finance have been consulted and are in agreement with the contents of this report.

7 BACKGROUND PAPERS

- 7.1 None.

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FW/EH

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