

ANGUS COUNCIL

ROADS COMMITTEE

2 MAY 2002

ROADS MAINTENANCE - ROUTINE ROAD MAINTENANCE

REPORT BY THE DIRECTOR OF ROADS

ABSTRACT

This Report details the criteria and operating policies used to undertake a Routine Road Maintenance regime to comply with the document "Delivering Best Value in Highway Maintenance, a Code of Practice for Maintenance Management", which replaces a previous 1989 document. This Report also reviews and proposes confirmation of the previous Tayside Regional Council Transportation Policies Nos. 1 and 2 as Angus Council Roads Policies.

1 RECOMMENDATIONS

It is recommended that the Committee agree:-

- (i) the confirmation of Transportation Policies Nos 1 and 2 of the former Tayside Regional Council (previously adopted on an interim basis) as Angus Council Roads Policies;
- (ii) the proposed routine road maintenance regime and operational policies.

2 INTRODUCTION

Angus Council is responsible for the safety and maintenance of the adopted road network within the Council area under the Statutory Duties set out in the Roads (Scotland) Act 1984. This responsibility is delegated to the Director of Roads under the Scheme of Delegation.

In undertaking this role the Council has adopted the former Tayside Regional Council policies as Interim Transportation Policies (Report No. AC 98/96 presented to Committee 28th February 1996).

Policy 1 states "The Council's first priority with regard to Road Expenditure will be to maintain and improve the structural fabric of the existing road system (including bridges and footways)".

Policy 2 states "The Council will endeavour to ensure that roads, bridges and footways on the list of public roads are maintained to a safe standard".

The former Tayside Regional Council used a document entitled "Highway Maintenance - A Code of Good Practice" published in 1989 in fulfilling its statutory duties under Part 1 of the Roads (Scotland) Act 1984.

In July 2001 a replacement to this code was produced entitled "Delivering Best Value in Highway Maintenance – A Code of Practice for Maintenance Management" (COPMM). Various seminars have since been held to introduce and inform local authorities of the changes and implications of the new code. The guidance in the COPMM is wide-ranging and covers all aspects of road maintenance including winter maintenance.

This Report deals specifically with the issues of routine road maintenance including safety and service inspections, defect monitoring and the intervention levels where remedial works are carried out. Future reports to Committee will detail other aspects of road maintenance covered by the COPMM.

This Report also takes the opportunity to re-examine the Council's Interim Road Policies Nos. 1 and 2.

3 **DETAILS**

The Council in adopting the previous Tayside Regional Council Transportation Policies Nos. 1 and 2 and complying with the previous Code of Good Practice has undertaken road maintenance in accordance with a standardised methodology. This methodology has assisted in managing the task of road maintenance and has enabled the Council and its insurers to defend public liability claims.

The previous Code of Good Practice gave recommendations for road maintenance and in some aspects was prescriptive (for example in the definition of trip hazards). The COPMM is less definitive and requires Councils to establish their own criteria and set down operating policies to deliver Best Value.

The criteria and operating policies have now been considered for a routine maintenance regime and these deal specifically with:-

- (a) Roads hierarchy
- (b) Inspection frequency
- (c) Defect monitoring
- (d) Defect Intervention

The details of this proposed routine maintenance regime are set out in Appendix A of this Report. In establishing the proposed regime the following factors have been considered:-

- (i) Finance - There is a current backlog of maintenance works required on the road network which is in the order of £77.5 million (including the effects of the Aggregate Levy introduced 1st April 2002). In establishing the maintenance regime it has been necessary not to increase this backlog of maintenance by unrealistically increasing the standard of maintenance from

that previously deliverable within current budgetary constraints. However it is also considered that the standard of maintenance should not be decreased in an attempt to artificially reduce the backlog of maintenance as this would reduce the level of service and expose the Council to possible additional civil claims.

- (ii) Insurance Issues - The inspection frequency and type have an influence on the ability of the Council or its Insurers to defend claims for damages arising from accidents on the public road network. In establishing the inspection frequency and type, consideration has been given to the type of claims received in an attempt to reduce the costs to both the Council and the prospective claimants.
- (iii) Resource Levels - In addition to financial issues the Council's other resource levels, in particular staffing, have been considered.

The Committee is asked to approve the proposed routine maintenance regime. The regime would be subject to possible future amendments as necessary particularly in view of any benchmarking exercise/service review and such amendments would be the subject of future reports to Committee.

Policies 1 and 2 detailed above have been reviewed and are considered to remain appropriate. The Committee is therefore requested to formally confirm these policies as Angus Council's Roads Policies, replacing the former Interim Transportation Policies.

4 **FINANCIAL IMPLICATIONS**

As noted above there are no financial implications as a result of the Report in that the routine maintenance regime proposed is formal adoption of the previous practices.

5 **HUMAN RIGHTS IMPLICATIONS**

There are no human rights implications arising from the proposals in this report.

6 **CONSULTATION**

The Chief Executive, the Director of Law and Administration and the Director of Finance (Audit, VFM and Risk Management) have been consulted in the preparation of this Report.

7 **CONCLUSION**

The Report revises the existing policies and methodology for routine maintenance in light of the recently published Code of Practice for Maintenance Management. It details the proposed routine road maintenance and operational policies for Committee approval.

R W McNeil
DIRECTOR OF ROADS

NOTE:

The following background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (other than any containing confidential or exempt information), were relied on to any material extent in preparing this Report:-

Report No. AC 98/96 – Angus Council Roads Committee – 28 February 1996.

IAC/AS
28 March 2002
REPORTS/routine.maint

APPENDIX 1**Angus Council Roads Maintenance - Routine Maintenance Regime****Criteria and Operating Procedures based on “Delivering Best Value in Highway Maintenance – A Code of Practice for Maintenance Management”****March 2002****1 Road Hierarchy**

The Council road network shall be categorised into a local hierarchy for both carriageways and footways.

The hierarchy is detailed in Annex 1.

2 Inspection Types

The Council road network shall be inspected by the Roads Department for public safety reasons and for the purpose of identifying specific routine maintenance needs. Specified intervals between inspections shall be not greater than those detailed.

All inspection personnel shall be responsible and competent for the task and shall be suitably trained and be fully conversant with inspection procedures and safety requirements.

Two types of inspection shall be carried out:-

(a) Safety Inspections

Safety inspections shall be carried out to identify those Defects which constitute an immediate or imminent hazard to the Road Users and therefore require immediate or urgent attention. Requirements for safety inspections shall be as set out below. Additional safety inspections shall be undertaken in the event of reports or complaints from the police, other Relevant Authorities and Road Users. Indeed road users are encouraged to take a pro-active role in reporting road defects through the use of the freephone CLARENCE system (Customer **L**ighting and **R**oad **E**nquiry **C**entre) and the Council’s Access Line and Access Offices. Early reporting of defects allows a quick response for remedial work. This in turn not only minimises the risk to other road users by making good the defect but also reduces the potential costs of repair by dealing with defects at an early stage before further deterioration can set in – the proverbial “stitch in time”.

Details of Defects to be recorded as part of the safety inspections are given in Annex 2.

The primary function of safety inspections shall be to (i) identify defects which constitute an imminent or immediate hazard to Road Users (i.e. Emergency/Category 1 Defects) and (ii) programme short term works to repair less hazardous defects (i.e. Category 2 and Category 3 Defects).

Carriageway safety inspections shall be carried out by trained personnel operating as a 2 person team from a slow moving vehicle. Where circumstances require inspection personnel shall proceed on foot either to confirm suspected faults or to complete the safety inspection having due regard to Safe Working Practices.

Footway safety inspections shall be carried out by trained personnel operating singly or as a 2 person team. The inspections shall be on foot for Primary and Secondary Walking Routes. Other footway inspections may be from a slow moving vehicle for asphalt footways where the view of the footway from the vehicle is unobscured. Slabbed footways or where the footway is obscured shall be inspected on foot.

Safety inspection data shall be recorded, including those showing a nil defect return.

Reports and complaints received from all other sources shall be similarly recorded and retained together with details of specific inspections and actions taken.

The safety inspection record shall include details of weather conditions, road surface conditions and any other relevant factors.

Safety inspections shall be undertaken with a maximum interval detailed below:

Category of Road Hierarchy	Safety Inspection Interval
Carriageway	
2 – Strategic Routes	Monthly
3a – Main Distributor	Monthly
3b – Secondary Distributor	Monthly
4a – Link Road	3 monthly
4b – Local Access Road	6 monthly
Footway	
1 - Primary Walking Route	Monthly
2 – Secondary Walking Route	Monthly
3 – Link Footway	3 monthly
4 – Local Access Footway	6 monthly

(b) Service inspections

Service inspections shall be required to establish programmes for those routine maintenance tasks that do not require urgent attention. This shall include Category 4 Defects.

Service Inspections shall be carried out to identify works programmes on a once per year basis for structural maintenance works to Strategic Routes, Main Distributors, Secondary Distributors and Link Roads; and on a once per five year basis for Local Access Roads.

Additional Service Inspections shall be carried out as a result of reports and complaints received from all other sources relating to the possible need for programmed structural maintenance.

Details of Defects to be recorded as part of the service inspections are given in Annex 2.

Additional surveys using such techniques as SCRIM , Deflectograph or High Speed Vehicle Surveys may be used to supplement or substitute for service inspections.

Programming of structural maintenance works shall be based on a prioritisation system. The system shall identify the priority schemes which will be included in future works programmes allowing for financial and external factors (i.e. others Sections priorities such as street lighting requirements). Programming of structural maintenance may use other techniques including Pavement Management Systems as appropriate.

Service inspection data shall be recorded. Service inspections shall not be required where known priorities have established a programme that exceeds the financial constraints imposed on the service.

3 Maintenance Requirements

Defects which are identified as a result of safety or service inspections, safety patrols, or following other reports and complaints, shall be placed into categories as below. Categorisation of Defects is given in Annex 2.

(a) Emergency

Emergency Defects are those which require prompt attention because they represent an immediate hazard to Users.

Emergency Defects shall if possible be made safe or isolated from Road Users at the time of inspection. Making safe may constitute displaying warning signs, coning or fencing off or other measures to protect Road Users. The Roads Department's employee identifying an Emergency Defect on site shall not leave the site until the defect is made safe as above or the appropriate workforce has

arrived on site to deal with the defect. Repairs of a temporary or permanent nature shall be carried out as soon as possible.

(b) **Category 1**

Category 1 Defects are those which require prompt attention because they represent an imminent hazard or because there is a risk of short term structural deterioration.

Repairs of a temporary or permanent nature shall be carried out within a maximum period of 24 hours. Temporary repairs may be necessary due to the timing of the defect report, the prevailing weather conditions or resource issues. All temporary repairs shall be inspected regularly.

Wherever possible, given site conditions and resource issues, repairs shall be first time permanent.

Permanent repairs of all Category 1 Defects shall be carried out as soon as practical following the temporary repair. Temporary repairs that prove to be successful may be reclassified as permanent.

All action taken, including temporary protective measures and repairs, shall be recorded.

(c) **Category 2 & 3**

Category 2 & 3 Defects are those which are not Category 1 Defects but involve a risk of structural deterioration or development into a Category 1 Defect prior to the next safety inspection; those which constitute a reduction in safety, level of service or amenity; and those which constitute an environmental threat.

Category 2 & 3 Defects shall be repaired within planned programmes of work taking account of the relative priority for repair, but in any case such repairs shall be carried out no later than 5 and 28 working days respectively, from the date of inspection which identified the defect.

(d) **Category 4**

Category 4 Defects represent Defects which do not constitute a reduction in safety, level of service or amenity but do involve a longer term risk of structural deterioration or deterioration to a more significant classification. Category 4 Defects shall be recorded as part of service inspections only and shall be taken into account in the prioritisation of programmed maintenance schemes. There shall be no time limitation as to when these Defects shall be rectified.

4 **Review and Monitoring**

This procedure shall be monitored and reviewed on an annual basis by the Roads Maintenance Section. The review shall be noted and any changes to the procedure notified to staff. Major changes will be reported to the Roads Committee.

ANNEX 1**Road Hierarchy**

The Council road network shall be categorised into a local hierarchy for both carriageways and footways. The COPMM categorises the road networks as follows:-

Carriageways

Category	Hierarchy Description	Type of Road General Description	Detailed Description
1	Motorway	Limited access motorway regulations apply	Routes for fast moving long distance traffic. Fully grade separated and restrictions on use.
2	Strategic Route	Trunk and some Principal "A" roads between Primary Destinations	Routes for fast moving long distance traffic with little frontage access or pedestrian traffic. Speed limits are usually in excess of 40 mph and there are few junctions. Pedestrian crossings are either segregated or controlled and parked vehicles are generally prohibited.
3a	Main Distributor	Major Urban network and Inter-Primary Links. Short – medium distance traffic	Routes between Strategic Routes and linking urban centres to the strategic network with limited frontage access. In urban areas speed limits are usually 40 mph or less, parking is restricted at peak times and there are positive measures for pedestrian safety.
3b	Secondary Distributor	Classified Road (B and C class) and unclassified urban bus routes carrying local traffic with frontage access and frequent junctions	In rural areas these roads link the larger villages and HGV generators to the Strategic and Main Distributor Network. In built-up areas these roads have 30 mph speed limits and very high levels of pedestrian activity with some crossing facilities including zebra crossings. On-street parking is generally unrestricted except for safety reasons.
4a	Link Road	Roads linking between the Main and Secondary Distributor Network with frontage access and frequent junctions	In rural areas these roads link the smaller villages to the Distributor roads. They are of varying width and not always capable of carrying two way traffic. In urban areas they are residential or industrial inter-connecting roads with 30 mph speed limits, random pedestrian movements and uncontrolled parking.

4b	Local Access Road	Roads serving limited numbers of properties carrying only access traffic	In rural areas these roads serve small settlements and provide access to individual properties and land. They are often only single lane width and unsuitable for HGVs. In urban areas they are often residential loop roads or culs-de-sac.
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Footways

Category No	Category Name	Brief Description
1a	Prestige Walking Zone	Prestige areas in towns and cities with exceptionally high usage, such as Prince's Street in Edinburgh and Oxford Street in London.
1	Primary Walking Route	Busy urban shopping and business areas, and main pedestrian routes linking interchanges between different modes of transport, such as railways and underground stations, and bus stops etc.
2	Secondary Walking Route	Medium usage routes through local areas feeding into primary routes, local shopping centres, large schools and industrial centres etc.
3	Link Footway	Linking local access footways through urban areas and busy rural footways.
4	Local Access Footway	Footways associated with low usage, short estate roads to the main routes and culs-de-sac.

The new CoPMM continues the road hierarchy as established in the previous 1989 Code. The road hierarchy for Angus Council Roads had been categorised under the previous Code and this categorisation has been reviewed and updated as required. New roads are categorised as and when they are added to the List of Public Roads.

ROADS MAINTENANCE DEFECT CATEGORIES

Potholes in Carriageway Running Surface

	Size Dia. (mm)				
	>75<150	>150<300	>300<600	>600<1000	>1000
Depth >40<60	Cat. 3	Cat. 3	Cat. 2	Cat. 2	Cat. 2
>60<85	Cat. 2	Cat. 2	Cat. 1	Cat. 1	Cat. 1
>85<100	Cat. 1	Cat. 1	Emergency	Emergency	Emergency
>100	Emergency	Emergency	Emergency	Emergency	Emergency

Potholes in Footpath

	Size Dia. (mm)				
	>50<75	>75<125	>125<300	>300<600	>600
Depth >20<40	Cat. 3	Cat. 3	Cat. 2	Cat. 2	Cat. 2
>40<60	Cat. 1	Cat. 1	Cat. 1	Emergency	Emergency
>60<80	Cat. 1	Emergency	Emergency	Emergency	Emergency
>80	Emergency	Emergency	Emergency	Emergency	Emergency

Ironwork in Carriageway

Trip/Depression		>20<40	>40<60	>60<85	>85
		Cat. 3	Cat. 2	Cat. 1	Emergency
Missing		Emergency			

Ironwork in Footway

Trip		>13<20	>20<40	>40<60	>60
		Cat. 3	Cat. 2	Cat. 1	Emergency
Depression		>20<40	>40<60	>60<80	>80
		Cat. 2	Cat. 1	Emergency	Emergency
Missing		Emergency			

Trips in Footway

Trip		>13<20	>20<40	>40<60	>60
		Cat. 3	Cat. 2	Cat. 1	Emergency

Kerbing, Edging & Channel Defects

Trip/Depression		>13<20	>20<40	>40<60	>60
		Cat. 3	Cat. 2	Cat. 1	Emergency
Missing at Channel		Emergency			
Missing at rear of footpath		Cat. 3			

Flooding

Water flowing across Carriageway	Emergency
Standing Water > 3m Long x 2.5m Wide x 40mm Deep	Emergency
Standing Water < 3m Long x 2.5m Wide x 40mm Deep	Cat. 3

* Particular attention to be paid to standing water in winter months due to possibility of ice forming

Safety Fences and Barriers

Section Missing	Emergency
Missing Spars	Cat. 3
Minor Damage	Cat. 3

Debris and Spillages

Debris or Spillage likely to Cause a Hazard to Motorists	Emergency
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*Particular attention paid to inclines and sharp bends

Street Lighting and Street Furniture

Electric Wiring Exposed	Emergency
Loose or Unstable	Emergency

Traffic Signs or Signals

Electric Wiring Exposed	Emergency
Traffic Signals not Working or Obscured	Emergency
"Stop" Or "Give Way" Missing, or Obscured	Cat. 1
Warning Signs Missing or Obscured	Cat. 3
Overhead Signs Slack / Loose	Cat. 1
Dirty Signs, Unreadable	Cat. 1
Dirty Signs, Readable	Cat. 3

Vegetation

Overhanging branches less than 5.5m High and within 0.5m of running surface of carriageway *	Cat.3
Overhanging branches less than 2.0m High over footpath *	Cat.3
Obscuring lines of site at junctions	Cat.3

* Defect Category may be upgraded if branches are likely to cause a significant hazard to road users.

Noxious Weeds

As listed in the Weeds Act 1959, including Spear Thistle, Creeping or field thistle, Curled Dock, Broad leaved Dock, Common Ragwort, Giant Hogweed	Cat. 3
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Roadmarkings and Roadstuds

Roadstuds, especially "catseyes", lying on Surface	Emergency
Missing roadstuds, leaving hole in road	Cat. 2
Missing roadstuds	Cat. 4
Roadstuds Non Reflective	Cat. 4
Roadmarkings at "STOP" junction missing	Cat. 2
Roadmarkings at junction missing	Cat. 3
Roadmarkings at junction worn	Cat. 4

Structures

Major Impact damage to Superstructures, supports or parapets	Emergency
Flood Damage	Emergency
Insecure expansion joints	Cat. 1

Retaining Walls and Embankments

Collapse of Retaining wall	Cat. 1
Embankment Slippage	Cat. 1

Verges

Collapse of Verge		EMERGENCY			
		Depth	>75<100	>100<150	>150<200
Over Riding of Verge		Cat. 4	Cat. 3	Cat. 2	Cat. 1