

**REPORT TO: PLANNING AND TRANSPORTATION COMMITTEE -
30 SEPTEMBER 2002**

**REPORT ON: WINTER MAINTENANCE POLICY AND LEVEL OF SERVICE
2002/2003**

REPORT BY: DIRECTOR OF PLANNING AND TRANSPORTATION

REPORT NO: 667-2002

1 PURPOSE OF REPORT

1.1 The purpose of this report is to explain the winter maintenance operations and to seek Committee approval for the proposed winter maintenance policy and level of service for winter 2002/2003.

2 RECOMMENDATIONS

2.1 The Committee is asked to approve the policy and level of service for winter 2002/2003 as outlined in this report.

3 FINANCIAL IMPLICATIONS

3.1 The winter maintenance budget for 2002/2003 is £603,000. The demand on the budget is subject to weather conditions and every effort will be made to contain expenditure within the overall budget. Expenditure will continue to be monitored weekly and reported to the Director of Finance during the winter months.

3.2 The combination of an Ice Prediction System, Thermal Mapping, the utilisation of a weighbridge and the trial use of pre-wetted salt will continue to result in the efficient use of resources.

4 LOCAL AGENDA 21 IMPLICATIONS

4.1 The use of salt as a de-icing agent has potentially detrimental effects on the roadside environment due to its capability of damaging vegetation by dehydration. However, effective control of rate and angle of spread of the salt will minimise the risk of such damage to verges.

4.2 Salt can also cause damage to bridges and other structures by accelerating corrosion of structural steel and steel reinforcement within concrete. Major structures such as the Tay Road Bridge are treated with an alternative to salt in the form of non-corrosive de-icing materials. However, these materials are many times more expensive and less effective than salt which prohibits their use on the overall road network at the present time. Any damage caused by salt on bridges and other structures must subsequently be dealt with through routine maintenance works.

4.3 Any new developments which may ultimately lead to a reduction in the use of salt within the constraints of the budget, will continue to be monitored by officers of the Department. Arrangements have been made this year for the new nightshift gritter to be equipped to spread pre-wetted salt. This enables more efficient

precautionary salting to be carried out on dry roads when frost conditions are forecast, and further reduces salt bouncing onto roadside verges or being swept into the road channels by traffic.

5 EQUAL OPPORTUNITIES IMPLICATIONS

- 5.1 The winter maintenance policy and level of service will contribute to the continued activity of elderly and mobility impaired citizens within the limits of available resources.

6 POLICY

- 6.1 **Dundee City Council will operate a priority system of winter maintenance which, as far as reasonably practicable, will permit the safe movement of vehicular and pedestrian traffic on the more important parts of the road network while minimising delays directly attributable to the adverse weather conditions and will aim to provide a suitable level of service on footways subject to available resources.**

- 6.2 The objective of this policy is to enable the Council to comply with its statutory duty to:-

“take such steps as they consider reasonable to prevent snow and ice endangering the safe passage of pedestrians and vehicles over public roads” (Roads (Scotland) Act 1984).

- 6.3 Tayside Contracts operate and maintain a fleet of dedicated winter maintenance vehicles to carry out winter maintenance operations on the roads and footways maintained by Dundee City Council Planning and Transportation Department.

- 6.4 These roads and footways have been prioritised as high or low depending on their importance etc as referred to later in this report.

- 6.5 The Roads and Transportation Manager will receive a road related weather forecast specific to the City early each afternoon during the winter maintenance period to assist him in deciding if Tayside Contracts should treat the roads and footways. Subject to the nature of the forecast, the instruction to Tayside Contracts can be to pre-treat the roads that evening and/or instruct the high priority route crews to report to the depot at a specific time the following morning. At that time a more accurate assessment of conditions can be made by the Dundee Winter Maintenance Controller using the Ice Prediction System (real time data) and any updates to the forecast, leading to a decision to either send the crews out or to stand them down.

- 6.6 The Ice Prediction System will also make data from outstations, such as air and road temperatures, precipitation, road wetness and presence of salt, available to the weather forecast provider to refine the accuracy of the forecast, which, in combination with thermal mapping survey information will automatically produce a graphical image of minimum expected road temperatures for the high priority network. This enables selective gritting to be carried out on a route basis when freezing is likely to be restricted to relatively few locations.

- 6.7 Winter maintenance is an expensive operation and the Director of Planning and Transportation will continue to investigate new methods/systems that may offer opportunities to reduce costs. Consideration will be given to extending the use of pre-wetted salt, referred to in 4.3 above, to the remainder of the fleet, as older vehicles are replaced.

7 BACKGROUND

- 7.1 The basis for establishing priority routes is proposed as follows **in relation to the formally adopted road network:**

- i All strategic routes
- ii Main service bus routes
- iii Other heavily trafficked roads
- iv Other adopted roads

- 7.1.1 In order that the service is provided within an acceptable timescale and within budget, the number and length of high priority routes has had to be held to a level commensurate with available resources.

7.2 Night Shift Cover

- 7.2.1 A limited night shift cover will operate on certain routes of major importance within Dundee City because of the need to treat these roads outwith high priority treatment times.

- 7.2.2 The night shift will operate from 26 October 2002 to 22 March 2003 between 21.00 hours and 05.30 hours. This represents an increase in the nightshift season to correspond now with full standby gritter cover. The previous nightshift season has had to be extended at short notice in March of several recent years due to forecasts of frost or black ice forming at times outwith the full standby cover. Advancement of the Ice Prediction and forecasting systems in recent years means that early and late season marginal nights are more predictable, and in some circumstances (eg when preceded by dry roads, winds or late night rain) can only be adequately treated by the nightshift. Given that the Council already uses a nightshift gritter on strategic roads, it is considered prudent to ensure that such eventualities can be dealt with. The length of this night shift route is approximately 121 kilometres.

- 7.2.3 The night shift crew will be based at Fairmuir Depot and can be instructed to patrol or treat these routes, initially based on the early afternoon forecast. Subsequent forecast updates or changes in actual conditions may result in this instruction being amended by either the Winter Maintenance Controller or a duty standby supervisor (Assistant Controller) depending on the time of this decision.

7.3 Priority Routes

7.3.1 The respective categories together with their approximate relevant lengths covered are as follows:

<u>Priority Route Category</u>	<u>Hours of Cover</u>	<u>Lengths (Approximately)</u>
High Priority Routes	0500-2200	470 route kilometre
Low Priority Routes	0730-1600	450 route kilometre

Cover may be extended on low priority routes during snow conditions as authorised by the Director or nominated manager.

7.4 High Priority Routes

Periods of Cover

1 26 October 2002 - 22 March 2003

The night shift will operate between these dates (1 crew).

2 24 October 2002 - 26 March 2003

The main standby system will operate for all priority routes (12 crews).

3 27 March 2002 - 2 April 2003

A reduced limited standby system will operate for all categories of priority routes (1 crew). In addition, arrangements have been made for suitable staff to be on the first week's summer standby (both the Department and Tayside Contracts) to deal with a "winter" contingency.

7.4.1 As part of the standby system between 24 October and 2 April, Mondays to Saturdays, regular early morning reporting at 0600 hours will operate (with the facility to call the crews out as early as 0500 hours for high priority routes if conditions dictate). During periods of anticipated relatively mild weather an operational decision may be taken daily to temporarily suspend this.

7.4.2 On Sundays and public holidays reporting of standby personnel will only be carried out if required.

7.4.3 It should be noted that while the standby crews' initial priorities are as detailed above, some flexibility in the movement of these standby crews is operated depending upon the prevailing weather conditions and the requirements of the service, but high priority routes will still be treated first.

7.5 Low Priority Routes

7.5.1 All resources will initially be concentrated on high priority routes, and it is only when these high priority routes have been adequately dealt with that resources will be deployed on low priority routes.

7.5.2 A concern still exists that culs-de-sac often do not receive prompt treatment because large purpose built winter maintenance vehicles have difficulty in manoeuvring due to parked cars and unsuitable turning points. It is thus not

- practicable to include most culs-de-sac within normal gritting routes due to the unacceptable route times which would result.
- 7.5.3 Tayside Contracts have purchased one large tractor with suitable attachments, which has proved effective in clearing culs-de-sac. A “small” gritter can also be allocated to clearing culs-de-sac on completion of work on high priority roads with width and weight restrictions. However, it would not be cost effective to purchase further such items of plant for such infrequent use.
- 7.5.4 Dundee Contract Services (Parks) have a number of similar large tractors which are made available to Tayside Contracts in snow conditions on the understanding that one of them may be required for commitments to Social Work Department prior to being available for roads. In heavy snow conditions, Tayside Contracts will pursue availability of further tractors on hire from other contractors whose normal activities are curtailed by the snow. However, the total available plant is still unlikely to be sufficient to treat all culs-de sac prior to thaw conditions taking effect.
- 7.6 Unadopted (Private) Roads
- 7.6.1 Following discussion at Committee when the 1998/99 Winter Maintenance Policy and Level of Service Report was approved, investigations were carried out on the feasibility of providing a winter maintenance service on unadopted roads. It was established that in addition to the problem of insufficient resources, as indicated in previous Reports, legal obstacles would likely arise. The 1984 Act makes no provision for winter maintenance to be extended to unadopted (private) roads. Therefore the Council has no specific legal powers under this Act to undertake this work and in these circumstances any insurance cover may be held to be invalid. Even if the Council did have general powers, care would have to be taken to ensure that private roads were not given unreasonable priority before any adopted roads otherwise the Council may be found to be in breach of their statutory duties in, for example, a case brought against the Council by someone injured on a public road due to winter conditions.
- 7.6.2 The Director of Finance has indicated that inevitable/unavoidable damage to unadopted footways and carriageways from winter maintenance operations due to the vulnerability of unmade and substandard surfaces would not be met by the Insurance Fund. The Public Liability insurance held by the Council responds to unforeseen loss or damage rather than inevitable/unavoidable damage. This is standard insurance market practice for this class of cover. In addition, as the Roads (Scotland) Act 1984 makes no provision to carry out winter maintenance operations on unadopted roads the Council’s insurers may question our actions if claims from these areas were brought against the Council.
- 7.7 Adopted Footways
- 7.7.1 Adopted footways are also categorised into high priority routes and low priority lists. The high priority routes are those which the footway snow ploughs deal with first, namely shopping areas and main bus routes, and the low priority footways are dealt with by the same method once the high priority routes are completed.
- 7.7.2 Whilst the Department’s aim is to clear all adopted footways, the total lengths involved mean this can take some days, particularly in recurring snow or when ice

- has formed and daytime temperatures remain very low. In such circumstances a number of footways may still be untreated when a thaw occurs. However, the above aim and actions compare very favourably to the situation nationally. Most Roads Authorities (Scotland) only treat selected footways, very few Highway Authorities (England & Wales) treat footways at all, and no footways are treated by the Northern Ireland Roads Service. Since this high level of service has been provided for many years, a correspondingly high public expectation has evolved in the city, sometimes unrealistically so.
- 7.7.3 The fleet of footway tractor ploughs is available during the winter maintenance period to treat ICE or SNOW. HOAR FROST on footways will not be treated unless prolonged over a number of days due to ineffectiveness of salt relative to normal daytime temperatures in such conditions.
- 7.8 Adopted Footways - High Priority Routes
- 7.8.1 These routes will have coverage from 0600 hours to 2100 hours Monday to Saturday and no coverage on Sundays and holidays. Cover outwith normal working hours will be by operatives who participate in the Winter Maintenance Standby Rota.
- 7.8.2 The standby period for footways will be from 28 November 2002 to 5 March 2003.
- 7.9 Adopted Footways - Low Priority Routes
- 7.9.1 These routes will only have coverage during normal working hours and after the high priority routes have been adequately dealt with.
- 7.10 Grit Bins
- 7.10.1 Following yearly increases in the provision of grit bins, there are now approximately 450 approved locations throughout the city. This continual increase, together with reductions in manual workforces, has led to the situation where resources to service the bins in snow conditions are now fully stretched.
- 7.10.2 It is the Council's current policy that new grit bins will be provided on request on adopted roads/footways, only at locations where the undernoted criteria are met, and that no further grit bins be provided where the carriageway or footway (as appropriate to the request) is not adopted. Criterion 5 below has been revised this year to improve provision for elderly citizens.
- 7.10.3 The criteria referred to above are:
- 1 the location is not on a High Priority gritting route (carriageway or footway as appropriate to the request), **AND**
 - 2 the location has a gradient greater than 6%, **OR**
 - 3 the location is on a tight bend **OR**
 - 4 the location incorporates a series of steps (within the adopted road boundaries) **OR**
 - 5 the location is within a sheltered housing area and is the main link road to local shops or public transport.
- 7.11 Footways/Footpaths Maintained by Other DCC Departments

7.11.1 As in previous years, in adverse conditions, communication will be maintained between roads control staff and supervisory staff of ECPD (for Housing) and DCS (Parks). This will enable information to be exchanged and the unavoidable misdirected requests from customers to be attended to

7.12 Exceptions

7.12.1 Exceptions to the foregoing paras 7.1-7.9 may be granted for **snow** emergencies but will be subject to approval from the Director, or in his absence the Roads and Transportation Manager.

7.13 Communications

7.13.1 Information packs were issued to all Members last year and included customised details of footway gritting routes affecting individual wards. It is proposed to issue details of any amendments to these routes to relevant Members. It is intended that in the future, gritting routes will be displayed on the internet, with progress on high priority routes being made in the near future as resources permit.

7.13.2 During snow conditions, relevant calls from the public to the Council's switchboard and the Clarence/Confirm lines, will be redirected to the Dundee control room at Marchbanks salt depot, which will be staffed accordingly. A control room number for snow conditions is also displayed on the A-Z section of the Council's website.

8 CONSULTATIONS

8.1 The Chief Executive, Director of Finance, Director of Support Services, Director of Corporate Planning, Director of Education, Director of Social Work, Director of Housing, Director of Economic Development, Director of Environmental & Consumer Protection, Director of Dundee Contract Services, Director of Leisure & Arts, Legal Manager, Principal Insurance and Risk Management Officer, Chief Constable and the Managing Director of Tayside Contracts have been consulted and are in agreement with the contents of this Report.

9 BACKGROUND PAPERS

9.1 None.

Mike Galloway
Director of Planning & Transportation

Iain Sherriff
Roads & Transportation Manager

IIFS/MJG/MS

20 September 2002

APPENDIX 1**CHRISTMAS/NEW YEAR PERIOD: DETAILS OF COVERAGE - ROADS**Adopted Roads1 Night Shift Route

Night shift will operate as normal throughout the period with standby providing cover at other times to give a 24 hour coverage.

2 Other Routes

The coverage for all other routes will be by standby only as follows:

Saturday 21 December	Saturday cover
Sunday 22 December	Sunday cover
Monday 23 December	Weekday cover
Tuesday 24 December	Weekday cover
Wednesday 25 December	Holiday cover
Thursday 26 December	Holiday cover
Friday 27 December	Weekday cover
Saturday 28 December	Saturday cover
Sunday 29 December	Sunday cover
Monday 30 December	Weekday cover
Tuesday 31 December	Weekday cover
Wednesday 1 January	Holiday cover
Thursday 2 January	Holiday cover
Friday 3 January	Weekday Cover

Cover

	<u>Weekdays</u>	<u>Saturday</u>	<u>Sundays and Holidays</u>
High Priority	0500 to 2200	0500 to 2200	0500 to 2200
Low Priority	0730 to 1600	Nil	Nil

APPENDIX 2**CHRISTMAS/NEW YEAR PERIOD: DETAILS OF COVERAGE - FOOTWAYS**Footways

Saturday 21 December	Saturday cover
Sunday 22 December	Sunday cover
Monday 23 December	Weekday cover
Tuesday 24 December	Weekday cover
Wednesday 25 December	Holiday cover
Thursday 26 December	Holiday cover
Friday 27 December	Weekday cover
Saturday 28 December	Saturday cover
Sunday 29 December	Sunday cover
Monday 30 December	Weekday cover
Tuesday 31 December	Weekday cover
Wednesday 1 January	Holiday cover
Thursday 2 January	Holiday cover
Friday 3 January	Weekday Cover

Cover

<u>Adopted Footways</u>	<u>Weekdays</u>	<u>Saturday</u>	<u>Sundays and Holidays</u>
High Priority Routes	0600 to 2100	0600 to 2100	Nil
Low Priority Routes	0730 to 1600	Nil	Nil