

WINTER SERVICE OPERATIONAL PLAN

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Section 1 – Introduction

- 1.1 The Winter Service can contribute significantly to the highway maintenance objectives contained in the Highway Network Management Plan and towards the ideals contained in the Maintenance Management Code of Practice ‘Well-Managed Highway Infrastructure’ as follows:

Network Safety – Statutory obligations and user needs vary across the UK, but safety is a prime consideration in any provision of winter service

Customer Service – User needs and expectations can be a major influence on customer satisfaction through demonstrating an efficient, effective and proportionate response to winter conditions.

Network Serviceability – Maintaining availability and reliability of the highway network is a key objective for Winter Service and one where user judgements of performance will be immediate rather than longer term

Sustainability – Low temperatures and the formation of ice can cause serious damage to the fabric of carriageways, footways and cycle routes and accelerated damage of the network. Effective Winter Service can contribute to a reduction in whole life costs and minimise damage to the environment.

- 1.2 The statutory basis for winter maintenance service varies in different parts of the UK. In England and Wales Section 41 (1A) of the Highways Act 1980 was modified on 31st October 2003, by Section 111 of the Railways and Transport Act 2003. The first part of Section 41 now reads:

- a) *“The authority who are for the time being the highway authority for a highway maintainable at the public expense are under a duty, subject to subsections (2) and (3) below, to maintain the highway”.*
- b) *“(1) In particular, a highway authority is under a duty to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice”.*

- 1.3 This is not an absolute duty, given the qualification of ‘reasonable practicability’, but it does effectively overturn previous legal precedence, albeit not with retrospective effect. Section 150 of the Highways Act still imposes a duty upon authorities to remove any obstruction of the highway resulting from *“accumulation of snow or from the falling down of banks on the side of the highway, or from any other cause”*.

- 1.4 Given the scale of financial and other resources involved in delivering the winter maintenance service and the obvious difficulties in maintaining high levels of plant utilisation for specialist equipment, it is not practically possible to either:

- Provide the service on all parts of the network;
- Ensure running services are kept free of ice or snow at all times, even on the treated parts of the network

- 1.5 To comply with this duty, it is important that the winter service should be delivered in accordance with the Statement of Policies and Responsibilities contained in Section 2 of the

- 1.6 This Plan is designed to meet the specific needs of Nottinghamshire County Council and will be operated by qualified and experienced personnel.

- 1.7 The Plan is a controlled document and will be issued to the persons shown in Appendix 1

- 1.8 All of the winter service policies, standards and procedures operate within the level of expenditure set. The provision of the winter service will be prioritised within available resources, subject to the vagaries of weather conditions and local variations.

PART A – Nottinghamshire County Council Policy

Section 2 – Statement of Policies and Responsibilities

2.1 Policies

2.1.1 Definitions

For the purpose of this document the following definitions apply:

Priority 1 Routes

These are the published lengths of roads collectively forming a strategic network and which are treated by the Highway Authority as a first call on its precautionary salting and snow clearance resources.

The criteria for defining Priority 1 Routes are as follows:

- a) All non-trunk A and B classified roads

The following road categories may also be included, subject to complying with the additional criteria (i to vii) below:

- b) Strategic routes carrying high traffic flows (>1500 vehicles per day AADT).
- c) Major urban distributor roads
- d) Main bus routes

Additional criteria relating to categories b, c and d above:

- i) Total 2-way flow to exceed 1500 vehicles per day AADT
- ii) Usage by public transport
- iii) Local climate
- iv) Comments from all emergency services
- v) Accident records during winter weather
- vi) Local factors (access to industry etc)
- vii) Efficient use of treatment routes and resources

Priority 1A Routes

These form a network of roads in the Arnold and Carlton area which are identified as desirable to treat during prolonged severe weather or snowfall to facilitate mobility of local residents. Treatment of these routes are to be carried out during normal daytime working hours only.

Priority 2 (Secondary) Routes

These are a further defined network of roads of identified importance such as bus routes, roads leading to essential industrial, military, medical or emergency service establishments or roads providing access to major settlements not served by Priority 1 routes. Priority 2 routes will also include those roads that establish at least one link to each settlement, accesses to special schools and certain problematic hilly areas.

Priority 3 Routes

These roads comprise the remainder of the network

Severe weather - will be when persistent widespread ice or snow (not frost) occurs for more than 24 hours and with forecasted temperatures not expected to rise above zero for a further 24-hour period.

Main bus route – for Winter Service purposes is a road carrying eight or more individual services (not individual journeys) in any hour

Urban Road – defined as roads subject to a 40mph or less speed limit

Rural Road – defined as roads subject to a speed limit exceeding 40mph

Highway – defined as the adopted carriageway, footway, pedestrianised area or cycleway for which the County Council is the Highway Authority.

Normal Working Day – is deemed to be the period between 0800 hrs and 1600 hrs Monday to Friday.

Priority 1 Footways

Following risk assessment, a list of footways shall be produced derived from those footways serving:

- i) Main shopping area
- ii) Busy urban footways to include those leading to main industrial establishments or hospitals
- iii) Promoted routes such as 'Safer Routes to Schools'
- iv) Footways offering segregated or combined cycle track facilities
- v) Bus stops on major bus routes

Priority 2 Footways

Following risk assessment, a further list of footways shall be produced derived from the footways serving i) to v) in the preceding section but not included in the Priority 1 footway list, together with footways adjacent to:

- i) School crossing patrol sites
- ii) Complexes for the elderly
- iii) Medical surgeries and clinics
- iv) Other locations where above average use by the elderly, very young or the mobility impaired can be reasonably anticipated

Priority 3 Footways

Treatment of other footways not defined as Priority 1 or 2 shall be undertaken when it is judged that a severe hazard exists additional to that which could reasonably be expected to be encountered by a pedestrian in periods of snow or prolonged frost.

2.1.2 Policy Statements

1 – Winter maintenance operations will be undertaken by Via EM Ltd. on behalf of Nottinghamshire County Council

2- Winter maintenance operations will give priority to a strategic network of 'Priority 1 Routes'. These will comprise the entire A and B classified road network carriageways plus main bus routes and certain other roads of major importance. The intention shall always be to complete the treatment of Priority 1 Routes in advance of ice forming on road surfaces whilst accepting that in some circumstances, such as late changes in weather forecasts, this will not always be possible.

2 – Routine pre-salting when ice is expected to form on carriageways shall be confined to the Priority 1 Routes unless severe weather is forecast

3 – In severe weather, treatment shall be extended to Priority 2 Routes as resources allow once Priority 1 Routes are in a satisfactory and passable condition. Priority 3 Routes shall be treated once all Priority 1 and 2 Routes are in a satisfactory condition and passable.

4 – During periods of prolonged severe weather salt conservation criteria may be considered. These criteria allow phased reductions in the extent of the network which is treated to be introduced based upon residual salt stocks.

The Group Manager (Highways and Transport) will make the decision whether to implement salt conservation criteria. This decision will be based upon Via EM Ltd's recommendation and will take into account existing salt stocks, the likelihood of additional stocks becoming available and weather forecasts. The proposed reductions will follow the sequence below:

- a) At the discretion of the Group Manager (Highways and Transport) salting will be reduced to P1 and P2 routes only.
- b) Salting of P1 and P2 routes will continue until only 9,000 tonnes of stock remains.
- c) Salting will be reduced to P1 routes only until only 4,800 tonnes of stock remain.
- d) Salting will be reduced to A and B roads only with limited other routes of strategic/essential amenity until 3,200 tonnes of stock remain.
- e) Continue salting of A roads only until stocks are exhausted.

In snow conditions one of the four daily runs may be of sand.

5 – The treatment of footways and cycle tracks shall reflect their importance for the safe movement of highway users and will be undertaken on Priority 1 footways when:

- a) Overnight frost or settled snow is likely to persist for the next 24 hours, or risk assessments indicate such action should be taken
- b) In the case of overnight frost, treatment of Priority 1 carriageway routes shall have been satisfactorily completed. In snow conditions, treatment of any footways shall be dependent upon the condition of Priority 1 and 2 carriageway routes and resources being available.
- c) In exceptional circumstances, treatment may be extended to Priority 2 footways as resources allow. Priority 3 footways may be treated once all Priority 1 and 2 footways are in a satisfactory condition.

6 – Salting of footways will not take place on Sundays or Bank Holidays. Salting of footways on Saturdays will only take place on the Priority 1A footway network to include major town centres/shopping areas and locations where pedestrian numbers are very high

7 – Winter service treatments will be confined to areas of adopted public highway only.

8 – A system of local weather stations will be operated and used to assist with weather forecasting and monitoring of local conditions. A competent external forecasting organisation will be used to provide specific and detailed forecasts to guide treatment decisions.

9 – 24 Hour winter service cover will be operated throughout the months of October to April inclusive to monitor winter weather conditions and enable treatment decisions to be made under changing circumstances.

10 – Response times from the winter service operator in all instances will be:

- a) All gritters will be loaded and depart from their operational base within one hour of call out
- b) Under normal circumstances, all Priority 1 Routes will be treated within four hours of gritters leaving their operational base.

11 – In icy conditions (other than in severe weather) individual locations on the public highway not on Priority 1 Routes will be salted only if in the opinion of the Police, conditions at the location concerned are abnormally hazardous with accidents occurring or very likely to occur. Further guidance about Police requests for road salting is included on Section 7.5.4

12 – Via EM Ltd. will liaise with Local Authorities responsible for winter service on roads within and adjacent to the County including coordination with their treated routes and treatment decisions.

13 – Where justified for reasons of efficiency and cost-effectiveness, reciprocal agreements will be entered into with adjoining Authorities for winter service treatment. Further details about reciprocal arrangements are included in Appendix 2. Any road treated by an adjoining authority would be treated in accordance with that authority's policies for operational purposes and not the local highway authority's policies.

14 – Grit/salt bins may be provided in accordance with Nottinghamshire County Council's grit bin assessment framework, this framework will be applied to all new and outstanding grit bin requests. The framework will also be applied to all existing grit bins to establish whether they are still required and are in the correct locations. The results of these assessments will be used to establish a priority refilling schedule. Grit bins which are demonstrably unused will be removed.

Grit bins will be filled with a 1 to 1 sand/salt mix. Bins will not be provided on Priority 1 Routes.

Salt bins should not be placed next to trees or hedges or within a distance equal to the height of the tree or hedge. Salt bins should be left on site outside the winter period.

Parish Councils will be able to purchase grit bins from Via EM Ltd. The price charged will cover the provision, delivery and first filling of the grit bin with a sand/salt mix. Further filling and maintenance of the grit bin will be the responsibility of the Parish Council.

Via EM Ltd.'s Highway Operations team will write to all Parish Councils offering to provide them with five bags of salt free of charge, a deadline for replies will be set. If it is available additional salt may be purchased from Via EM Ltd. and the price charged will be calculated to reimburse Via EM Ltd's reasonable costs.

Parishes will be able to purchase salt at any time however, due regard must be made of Via EM Ltd's ability to make deliveries during periods of severe weather. To overcome logistical difficulties Parish Councils should plan to make their purchases as early as possible.

15 – Salt heaps may be provided as a self-help measure in rural areas where either of the following conditions occur:

- a) A steep hill (>10% gradient) or sharp bend
- b) A junction hazard is present

They will be sited to cause minimal damage to grassed areas or other vegetation. Salt heaps should not be placed next to trees or hedges or within a distance equal to the height of the tree or hedge. In recognition of the potentially detrimental effects of salt heaps on the environment, there will be a presumption against the provision of new salt heaps and that ultimately all salt heaps will be removed.

16 – Snow wardens may be appointed by the local Parish or Town Council.

2.2 Objectives

2.2.1 General Objectives

The objective is to complete necessary precautionary salting before ice starts to form and actions must be with this aim in mind. The decisions if and when to salt must be made after taking all information into account and the situation should be reviewed continuously. If a warning has been received and indicate a frost likely, then the drivers should turn out at such a time as to allow salting to be completed before the frost. Provision should be made in any system so that salting is done when required, not necessarily when it is convenient, and it is also essential that, in the event of adverse weather developing during the night, provision is made for treatment to be completed before the morning traffic build-up.

Precautionary salting is carried out on specified Main Treatment Routes in advance of ice forming. This should allow the bulk of the road users the option of moving about the County on treated roads. Priority 2 Snow Routes will be salted in severe and prolonged ice or snow conditions.

2.2.2 Footways and Cycle Tracks

Via EM Ltd carries out treatment of footways in accordance with Policy Statement 5 in Section 2.1.2. Snow clearance and some salting are done on footways in snow conditions with priority being given to urban shopping areas, etc used by large numbers of pedestrians. A schedule of these priority footways is held at the winter service office at Newark.

2.2.3 Snow and Emergencies

First priority must go to Principal roads and access routes to hospitals etc with the remainder of the normally maintained roads being treated later. In the case of snow, it is essential to maintain access, with the road surface safety being of secondary consideration.

If necessary, day drivers will salt minor roads not covered by the Precautionary Routes at the discretion of the Duty Winter Maintenance Controller but the roads covered by the Precautionary Routes have priority and must be clear before gritters are diverted.

2.2.4 Snow Clearing

Slight falls of less than 25mm will normally be treated with precautionary salting.

Stage 1 – this occurs when there is a slight to moderate snowfall (25 – 100mm) which will be dealt with by the gritters supplemented by additional ploughing vehicles.

Note: It is vital that the gritters are kept moving on the Precautionary Routes followed by other roads and that local trouble spots are dealt with by other vehicles. Bulk gritters must not be utilised clearing roads but should be used for making repeated light applications of salt of roads already open.

Stage 2 – This occurs when there is a heavy snowfall (over 100mm) and as a result of this, resources need to be co-ordinated in each Area and Via EM will liaise with District and Borough Councils.

In severe conditions the Officer in charge should consider double salting of the Main Routes by using spare gritters or trailers to salt Main Routes in reverse direction, ploughing at the same time so that a lane is cleared and salted in each direction. It may be advantageous to put another snowplough operating in echelon with a gritter to make the most effective use of salt.

2.3 Liaison and Communication Arrangements with Other Authorities

2.3.1 Liaison

Via EM Ltd. will liaise with Local Authorities responsible for winter maintenance service on roads within and adjacent to the County regarding their treated routes and treatment decisions. Additionally, there is an exchange of treatment action instructions.

Any road treated by an adjoining authority would be treated in accordance with that authority's policies for operational purposes and not the local highway authority's policies.

2.3.2 Reciprocal Arrangements

Roads in other Authority areas gritted by Via EM Ltd and roads in Nottinghamshire gritted by other authorities are included in appendix 2.

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Section 3 – Route Planning for Carriageways, Footways and Cycle Routes

3.1 Priority 1 and 2

Schedules detailing the carriageway routes which comprise Priority 1 and 2 routes are held at the winter service office at Newark.

3.2 Carriageway Routes for Snow Clearing by Risk Level

There are at present no pre-determined carriageway routes for snow clearing.

First priority must go to Principal roads and access routes to hospitals etc. with the remainder of the normally maintained roads being treated later. In the case of snow, it is essential to maintain access, with the road surface safety being of secondary consideration.

If necessary, day drivers will salt minor roads not covered by the Precautionary Routes at the discretion of the Duty Winter Maintenance Controller but the roads covered by the Precautionary Routes have priority and must be clear before gritters are diverted.

3.3 Routes for Footbridges, Subways and Other High Risk Pedestrian Areas

Footways will be treated in accordance with Policy Statement 5

Appendix 5 details Priority 1 footway treatment schedules

3.4 Routes for Other Footway Treatment by Risk Level

There are no pre-determined routes for further footway treatment. Reactive treatment will be in accordance with Policy Statement 5.

A memorandum of understanding exists between the County Council and District Councils. This outlines actions taken by each authority in identifying and responding to snow/ice events.

3.5 Routes for Cycle Route Treatment by Risk Level

There are no pre-determined routes for treatment of cycle tracks. Reactive treatment will be in accordance with Policy Statement 5

3.6 Special Sites or Features (e.g. Near Railways or Traffic Calming)

Salt must not be spread between the 'Stop' lines of all railway level crossings, even when covered by snow. Before ploughing over a level crossing the driver must stop and telephone the signal box for permission to proceed and then inform the signal box when past the crossing.

Note should be taken of the location of traffic calming features. These could seriously affect the ability to carry out snow clearing operations.

3.7 Response and Treatment Times for all Carriageway Treatment

All gritters will be loaded and depart from their operational base within one hour of call out. Under normal circumstances, all Priority Routes have been designed to be completed within approximately 4 hours of leaving the operational base.

When frost conditions are forecast, the objective must be to complete precautionary treatment on the main gritting routes before ice starts to form.

When snow conditions are forecast, priority must go to Principal Roads and access routes to hospitals, etc. with the remainder of the normally maintained roads being treated later. Every effort must be made to start operations as early as possible and gritting should be started irrespective of temperature and a normal precautionary run made. If the snow is lying, a second run should be made.

In severe conditions, it may be necessary to salt Priority 2 Routes but these should be done after the Main Routes. If necessary, drivers will salt minor roads not covered by the Precautionary Routes at the discretion of Via EM Ltd., but the roads covered by the Precautionary Routes have priority and must be clear before gritters are diverted.

3.8 Response and Treatment Times for Footways and Cycle Route Treatment

In the case of footways, treatment will be in accordance with Policy Statement 5

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PART B – VIA East Midlands Operational Procedures

Section 4 - Winter Planning

4.1 Review of Winter Network

In June/July a review of the salted network is undertaken with Nottinghamshire County Council to take account of:

- network changes
- new development patterns;
- developments in winter service plant and facilities; and
- developments in winter service practice and legislation.

4.2 Preparation for Winter

The winter season is from 1st October – 30th April. However, this will be extended if necessary.

- Before the commencement of the winter season the following will be undertaken:
- Ice detection system will be calibrated and maintained.
- Gritting fleet will be in place including renewals.
- Ploughs will be serviced and accessible.
- Winter standby rotas will be agreed.
- All gritting vehicles and routes will be adequately resourced with accredited operatives.
- Calibration of gritting fleet will be arranged before the end of October.
- Salt stockpiles will be surveyed and replenished to agreed storage profile.
- Forecast arrangements will be agreed, including communication protocol.
- Contingency plans will be agreed and put in place for snow removal.
- Contact details for contractors able to assist in severe conditions will be confirmed.

4.3 Winter Review

The effectiveness of the winter service will be monitored on the following basis:

- forecasts – accuracy and timeliness;
- response and treatment times;
- salt usage;
- financial monitoring; and
- reported road traffic collisions

4.4 Post Winter Review

On completion of the winter season a review of the overall effectiveness and efficiency of the season's activities will be undertaken. This will involve:

- meeting with forecast provider
- a meeting to review performance and develop an action list for inclusion in next year's winter service policy and procedures.

Section 5 – Weather Prediction and Information

5.1 Road Weather Stations

5.1.1 Introduction

Road weather stations use sensor technology to measure and monitor road surface temperatures, surface conditions and other meteorological parameters at selected points across the highway network. Used in conjunction with meteorological forecasts and Thermal Mapping, they allow winter service staff to know what is happening at any location in the Thermally Mapped network.

5.1.2 Road Weather Stations in Nottinghamshire

There are currently seven weather stations within Nottinghamshire which are owned by Nottinghamshire County Council and utilised by Via EM Ltd.:

A606 Tollerton
A611 Coxmoor
A60 Costock*
A631 Beckingham*
B6045 North of Blyth
A614 Perlethorpe*
A614 Burntstump*
A608 Annesley.

Additionally, Via EM Ltd. has access to data from the following weather stations in the area, owned by others:

A1 Claypole
A57 Newton
A453 Clifton Bridge
A52 Saxondale

* forecast stations

5.2 Road Weather Information Bureau Service

5.2.1 Bureau Service Provider

The road weather information bureau service is currently provided by Vaisala TMI Bureau at Birmingham under the terms of a five year term contract for the period 2012-2017.

Contact address:

Vaisala Ltd,
Birmingham Operations,
Vaisala House,
349 Bristol Road,
Birmingham,
B5 7SW.

Vaisala Customer Support Helpdesk:

Phone 0121 683 1269
Fax 0121 683 1226
Email ice.customer.support@vaisala.com

5.2.2 Access to Bureau Service

Access to the Vaisala Bureau Service is from workstations and laptops via a password protected website.

5.3 Road Weather Forecast

5.3.1 Weather Forecast Service Provider

The weather forecast is provided by Metdesk

Contact address:

Met Desk
4 Station Approach,
Buckinghamshire,
HO22 6BN

5.3.2. Service Provision

Current service provision includes:

- 24 Hour text forecast
- 24 Hours site specific forecast graphs
- 2-5 day forecast
- Monitoring, updating and amending forecasts
- 24/7 consultancy
- Supporting service components
 - Decision board
 - Precipitation Type Radar
 - Archive and PDF tools
 - Forecast delivery
 - Satellite imagery
 - Weather maps
 - Long term probability forecasts

5.4 Thermal mapping

Thermal Mapping is a process by which the spatial variation of minimum night time road surface temperatures (RSTs) is measured using a high resolution infrared thermometer. The thermometer is mounted in a specially equipped vehicle and connected to an automatic data logger. Readings are taken along the road surface and recorded. Thermal Maps are produced using collected data to provide a representation of the relative spatial variation of minimum RST under different weather conditions.

The Thermal Maps can then be used to locate the optimum position for the siting of road weather stations, which use sensor technology to measure and monitor RSTs, surface conditions and a wide range of meteorological parameters. Combining the Thermal Maps, the road weather stations and a

meteorological forecast, a prediction of RST over the road network can also be produced for up to 24-hours ahead using a computer model and system.

Where de-icing materials (salt) are used in winter service operations, Thermal Maps can be used to optimise the winter gritting routes. Route optimisation aims to maximise the efficiency of treatment routes to enhance safety for the road user by taking account of the thermal characteristics of the road network under different meteorological conditions.

Thermal Mapping surveys were conducted across Nottinghamshire County Council's Priority 1 treatment network in January and February 2005.

5.5 The Decision Making Process

The decision making process is summarised in Appendix 3.

5.6 Information to be Provided

The weather forecast is issued in conjunction with the treatment instruction which may be one of the following:

- **No planned action** – where temperatures are not predicted to go below 3°C and no problems are foreseen.
- **Evening/overnight inspection** – where freezing or snow is predicted, conditions are to be assessed on routes before finalizing the action and its timing.
- **Early morning inspection** – where freezing or snow is predicted and conditions are to be assessed on routes in the morning before confirming the proposed action and its timing.
- **Early morning instruction – freezing at dawn** – where temperatures are predicted to be above freezing overnight but dip to freezing or below at or near dawn, the forecast provider should be consulted to obtain the latest forecast update before proceeding further with a route inspection.
- **Pre-treatment** – where freezing or snow is expected and the pre-treatment network is to be treated.

5.7 Timing and Circulation of Information

The initial forecast will be available from approximately 10:00 hrs. each morning. The decision on the treatment action will usually be made on the lunchtime forecast and should be made in time for issuing at 13:00 hrs. The treatment action instruction is issued by e-mail.

At weekends, only the County Duty Officer will be contacted by telephone.

5.8 Reporting Procedure

All records for weather forecasts, action instructions, salt usage, logs of activity etc. are retained at Newark Depot. Archived records from the weather bureau service provider are produced by Vaisala Ltd. and retained by Via at Newark Depot.

Archived records and performance reports are produced by the MetDesk, the weather forecast service provider.

5.9 Maintenance of Ice Detection Equipment

All Nottinghamshire ice prediction stations are provided and maintained by Vaisala Ltd under

an annual agreement with Via. This maintenance comprises:

- a) pre-season site checks, calibration and maintenance of each station with a printed report;
- b) mid-season calibration check;
- c) checks on station performance throughout the winter season with direct reporting of faults to the highway Office at Newark Depot;
- d) rapid response to defects by a site visit by Vaisala Ltd. staff.

In the event of partial or total failure of the Ice Prediction System, there are telephone-links direct to the MetDesk Office Duty Forecasters allowing telephone consultation and advice to be given.

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Section 6 – Contract and Voluntary Personnel (CVP)

6.1 Contact and Commissioning Arrangements for CVP

Parish Councils

Self-help has to play an important role in overcoming heavy snowfall and snow drifting. These conditions demand a continuing commitment of Departmental resources to main arteries of the road network in order to maintain access to all local areas. The aim is to foster and encourage the voluntary spirit that is so apparent in any emergency, and to organise and direct local resources to their best effect and if severe access problems occur.

Parish Councils should establish contact with neighbouring Parishes and should familiarise themselves with the geography and road network in the Parish and with the normal routine of transport services such as school buses and milk tankers.

The Parish's main objective is to report on and assist, where necessary, with major problems on minor roads and routes leading to villages and hamlets. Via EM Ltd.'s main effort will be devoted to clearance of the major traffic routes.

Ploughing will normally commence when traffic starts to have difficulty and when drifting begins, and needs to be continued, as snow melts, to remove slush which otherwise may become compacted by traffic.

When heavy snowfall and drifting persists, efforts to clear certain lengths of road may become a 'losing battle', and operation should be diverted to an alternative route if that may be more readily kept open.

Via EM Ltd.'s own and hired plant is solely for use on the public highway and to the general community benefit.

Other than in providing an essential route for community use and in providing assistance on request from the emergency services (fire, ambulance and nursing services), requests for clearance of routes to individual premises and of private roads should be resisted and referred instead to private plant operators. These can make their own arrangements with the individual requiring assistance at their own expense.

Grit bins or salt heaps will be provided and maintained by the Via EM Ltd., normally at strategic points on very hazardous inclines or severe bends. Suggestions for additional sites and requests for replenishment of stock should be made to Via EM Ltd.

There is to be no reimbursable work on clearance of footpaths or on loading and removal of snow without the express approval of Via EM Ltd.'s relevant District Highways Manager. Self-help by the local populace can be encouraged but care must be taken to ensure that more blockage or restriction of carriageways and drainage channels does not occur as a consequence.

Via EM Ltd. has no right in law to deposit snow on private land and when this action is necessary to clear an obstruction care must be taken to minimise damage. When fences, walls and other private property are damaged, whether by accident or by deliberate action, the details including the extent of damage and the reason must be reported to the NCC's Contract Management Team without undue delay.

- a) Essential Services – Emergencies – Requests for assistance outside the interest and scope of the Highway Authority should be made to the Police who are able to contact specialised assistance (e.g. air transport, medical treatment etc.)

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- b) Communications – In the event of total communication breakdown, instructions will be issued over the Local Radio by bulletins or given general issue from the County Emergency Planning Centre at County Hall
- i) Provide information to the Via EM Ltd. on the local situation throughout periods of exceptionally adverse conditions
 - ii) Consult with the Via EM Ltd. on the local action to take if necessary to supplement the operations of the County Council
 - iii) Organise that action, utilising the local resources agreed with the Via EM Ltd.
 - iv) Receive requests for assistance and assess the overall situation, determining priorities for operations in conjunction with the Via EM Ltd.

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Section 7 – Quality Plan

7.1 Quality Management Regime

7.1.1 Quality Policy Statement

Via East Midlands have gained accreditation for its Quality Management System for all activities within the scope of the accreditation. Via has a commitment to comply with the requirements of its Quality Management system and to continually improve the effectiveness of the system. For all activities within the scope of the accreditation, methods, systems, training, implementation and inspection procedures will be maintained which provide objective evidence that all output, including design, workmanship and materials, conform to specified requirements. This policy and the quality objectives will be reviewed annually.

7.1.2 Accreditation

Via East Midlands are BSI registered to BS EN ISO 9001:2008 for winter maintenance operations

7.2 Document Control Procedures

Procedures are as contained in the quality manual

The master copy of the quality manual is maintained at Trent Bridge House and is available online for all users to view. Master copies of all winter service documentation are kept on the main files at Newark Depot.

Documentation on separate files relating to salt usage, logs of activity, Duty Controller actions, salting instructions, action by neighbouring authorities and weather forecasts are kept at Newark Depot. Records from the GPRS system fitted to the gritting vehicles are also kept at that depot.

7.3 Information Recording and Analysis

Records of weather forecasts, conditions recorded by weather stations, treatment instructions and daily activity notes giving action taken, times of actions etc. are retained at Newark Depot. Information is recorded and stored in accordance with the records procedure in the Quality Manual. This procedure includes the requirement to keep winter treatment records for 22 years, 9 months.

7.4. Arrangements for Performance Monitoring, Audit and Updating

Performance monitoring is carried out by monitoring times of salting completion against time of onset of frost. The 'Percentage of precautionary salting completed within time' forms KPI07 of Via EM Ltd.s performance management framework and is reported quarterly. The achievement criteria for KPI07 is 100% of routes completed on time. Service credits of £50 may be applied to every route which Via EM Ltd. fails to complete on time.

Monthly costs and productivities are also reported monthly as part of Via EM Ltd.'s Monthly Activity Schedules (MAS).

The highly variable and unpredictable nature of the British winter means that simple comparisons of budget with out-turn figures, is not an appropriate performance indicator. To be informative, performance monitoring should review the performance and cost effectiveness of winter service under the following headings

- a) Operations (A full annual review of the Winter Service Plan should be undertaken during the Spring)
- b) Forecasting Service

c) Ice Detection Equipment

Additionally, various elements of data and information are collected and compared with neighbouring authorities. Internal audits are carried out in accordance with the 'Quality System Auditing, Corrective and Preventative Action' procedure in the Quality Manual.

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Section 8 – Organisational Arrangements and Personnel

8.1 Command, Control and Operational Organisation

8.1.1 Contact details

- i) Duty Controllers and Night Shift Drivers

See locally distributed information
- ii) Winter Service Control Room: 01636 615397

07841 883849 Mobile

07841 883418 Backup Controller

8.2 Employee Roles and Responsibilities

8.2.1 General

At all times, precautionary salting shall be controlled by the Highways Operations Team Manager. On receipt of weather forecasts, decision on the action necessary for precautionary salting, will be made by the Duty Winter Service Controller, with the assistance of the Highway Operations Team Manager or Seasonal Works Manager as required.

8.2.2 Team Manager

- i) Preparation of precautionary salting routes in accordance with County Council Policies
- ii) Monitoring winter service expenditure
- iii) Maintenance of a list of Parish Council contacts and a record of emergency routes to be used if communities cut off by snow
- iv) Receive the daily weather forecast during the winter period and issue the salting instruction
- v) In the case of heavy snow:
 - a. Assessment of conditions, scale of snow clearing operations necessary, progress being made, media contact requirements and the informing of management of the current situation;
 - b. Setting up scouting operations using Inspectors and any other mobile staff to establish a complete picture of conditions throughout the County;
 - c. Assessment of priorities and direction of the company's resources accordingly;
 - d. Deciding whether to extend manning of the control at Newark;
 - e. Requisitioning of any necessary plant from Highways England;
 - f. Maintaining a record of roads blocked etc as reported by staff or Parish Councils
 - g. Co-ordination of inter- area operations and allocation of priorities throughout the County;
 - h. Re-distribution of the County resources, including possible assistance to or from partners;
 - i. Liaison with customer teams over provision of information to motoring organisations, bus companies and local radio stations;
 - j. Maintaining a log of all information received and given out and all action taken;

- k. Co-ordinating use of hired plant
- vi) Maintain records of road conditions
- vii) Maintain a list of contractors with equipment suitable for snow clearing and hiring such plant as necessary;
- viii) Maintain liaison with both local and county Police and other emergency services;
- ix) Brief Duty Winter Service Controller of situation and receive briefing in return.

8.2.3 Co-ordinating Control (Highways Management)

- i) Assess scale of snow clearing operations necessary Countywide;
- ii) Arrange manning of Headquarters control;
- iii) Report road conditions to the Government Office for the East Midlands
- iv) Request special equipment from Highways England
- v) Liaise with and issue information to 'bus companies, motoring organisations and local radio stations;
- vi) Allocate priorities throughout the County. Re-distribute, if necessary, the company's resources including possible assistance to or from partners;
- vii) Maintain a record of roads blocked;
- viii) Liaise with the Highway Operations Team Manager and Seasonal Contract Agent and keep the Group Manager (Environment & Highways) and Via Managing Director informed.

8.2.4 Duty Winter Service Controller

- i) The Duty Winter Service Controller is to liaise with the Highway Operations Team Manager on all matters relating to the weather forecast and the action to be taken;
- ii) Check the weather report left by the office staff and also the telephone answer machine for any messages;
- iii) Check the temperature on the Depots at the commencement of the shift and at hourly intervals and record the temperatures in the log;
- iv) The situation should be reviewed throughout the shift. A final consultation with the weather centre prior to 05.00 hours should be made to determine whether an extension of the Night Shift is necessary;
- v) If the weather deteriorates during the night when a forecast has not been received earlier, the information must be passed to the partners as well as turning out drivers. The County Duty Officer should be informed;
- vi) If snow starts to fall, a salting run should be made irrespective of the temperature and if the fall is appreciable. The Area Duty Officer must be informed so that additional men

can be turned out for ploughing. If the snow is lying a second run should be made. The partners should be notified for information or assistance;

- vii) In severe conditions it may be necessary to salt Priority 2 severe weather routes. These will be treated after the main gritting routes and when conditions are likely to cause traffic considerable difficulty. The Operations Team Manager should be contacted before Priority 2 severe weather routes are treated.
- viii) If leaving the depot take a mobile phone to maintain contact;
- ix) The logbook provided must be kept up-to-date and an entry made of temperatures, telephone calls made and received and all actions taken. In extreme conditions the controller will ensure that each depot maintains a detailed logbook of all telephone calls, weather conditions, vehicle movements etc for the full shift;
- x) At the end of the shift details of salt usage must be left in the winter service office;
- xi) If the Police request further treatment on Priority 1 Routes due to ice then they will be retreated without delay;
- xii) If a request is received from the Police to salt a location not on a Priority 1 route the procedure for dealing will be as follows:
 - a. Obtain the name and contact number of the Officer concerned and note this in the duty log
 - b. Speak to the Officer concerned (or via the Control Room) and ascertain whether it is judged that the incident was a 'one-off' or whether there are circumstances present that could lead to road users driving sensibly according to the local weather conditions having a high risk of an accident

Examples of this might be an icy patch caused by a water leak or drainage problem, isolated black ice or freezing rain on a sharp bend or steep gradient.

More than one accident at a location may lend support to the presence of unusual circumstances warranting salting, but this is not conclusive.

If the Duty Controller is satisfied that the location warrants salting, a gritter should be sent to the scene as soon as possible, but also bearing in mind that there may be a delay in attendance due to the additional mobilisation time required. The Police should be informed of this and advised of an expected time on scene wherever possible.

Maximum co-operation will be extended to the Police in these circumstances and the presumption should be that we will respond to requests unless the above circumstances are not met. Any decision not to attend should be made in discussion with the Officer concerned.

- xiii) If snow starts to fall and it is likely that treatment of footways will be necessary, the Duty Officer should be informed so that additional men can be made available.

8.2.5 County Duty Officer

- i) During normal working hours the County Duty Officer should acquaint themselves with details of the 12:00 hours forecast and the salting decision made. Details are emailed to

all duty officers or details can be obtained by telephoning 01636 615397 or 01636 615391

- ii) During the night shift period (November – March), it may be necessary to seek information from the Duty Winter Service Controller regarding conditions and courses of action. The Duty Controller can be contacted on 01636 615397 or mobile 07841 883849 between 20:00 hours and 05:00 hours, 7 days per week. The Duty Controller also has access to the weather service bureau and will be monitoring conditions.
- iii) It is expected that the County Duty Officer will develop an awareness of the general situation during the duty period and will seek information from the duty controller at any time.

8.2.6 Gritter Driver

To be read in conjunction with Health and Safety Procedures (6.13)

- i) All drivers are responsible for checking the setting and operation of the spinner;
- ii) Prior to leaving the depot the salt sensor is to be checked for its correct operation;
- iii) The sensor must be switched on at all times during salting operations;
- iv) The driver is to make regular checks to ensure the chute is clear. Ensure both the PTO and spinner is stationary before attempting to clear any blockages. Consideration for the safety of the operator and other road users must be taken into account when stopping the vehicle to clear any blockages in the chute;
- v) The driver is to return to treat any part of the route that may have been missed due to a blockage;
- vi) All vehicles are to have tachograph cards fitted before commencing gritting operations for recording/checking purposes;
- vii) No gritter must exceed 56kph (35 mph) whilst involved in salting operations;
- viii) Gate setting – the gate must be set in accordance with the controller's instructions. A setting of 25mm (1") will be normal;
- ix) Loading vehicles – No gritter is to be overloaded
- x) Each gritter is to be weighed before leaving the depot. No vehicle is to be taken out of any depot without a weight ticket being completed.

8.3 Employee Duty Schedules, Rotas and Standby Arrangements

8.3.1 Staff Rotas

During the winter period October to April, a weekly emergency rota will operate to cover out of hours duty to start at 09:00 hours on a Monday and finish at 09:00 on the following Monday. The relief Controller will have a mobile emergency telephone switched on and with him at all times outside normal working hours. For the contact phone number, see the published rota.

A countywide answering service (First Call) is also available on 0845 603 0548 for urgent messages for the Duty Controller.

The rota of Duty Officers outside working hours for the County is published separately and is subject to amendment.

8.3.2 Standby Arrangements

Standby personnel will carry out any salting required during the day including Saturday and Sunday. Saturday and Sunday night will be covered by the night shift drivers on a standby basis directed by a Duty Controller working from Newark and who will be given the salting instructions by the weekend standby controller.

8.3.3 Single/Double Manning

The use of drivers' mates is not usually necessary on precautionary gritting or whilst undertaking ploughing operations.

8.4 Standard Operating Procedures

All gritters will be loaded and depart from their operational bases within one hour call out. Under normal circumstances, all priority routes have been designed to be completed within approximately 4 hours of leaving the operational base.

When frost conditions are forecast, the objective must be to complete precautionary treatment on the main gritting routes before ice starts to form.

When snow conditions are forecast, first priority must go to principal roads and access routes to hospitals etc. with the remainder of the normally maintained roads being treated later. Every effort must be made to start operations as early as possible and gritting should be started irrespective of temperature and a normal precautionary run made. If the snow is lying, a second run should be made.

In severe conditions, it may be necessary to salt Priority 2 severe weather routes but these should be done after the main routes. If necessary, drivers will salt minor roads not covered by the precautionary routes at the discretion of the Highways Operations Seasonal Works Manager, but the roads covered by the precautionary routes have priority and must be clear before gritters are diverted.

As far as possible, ploughing should be undertaken by other vehicles with gritters making a succession of light applications of salt. The minimum provision for ploughing should be approximately one plough for each 40 kilometres (25 miles) of road for which the Authority is responsible. Vehicles other than gritters should deal with local trouble spots. In severe conditions, the main gritting routes should be double salted by using spare gritter or trailers to salt main routes in reverse direction, ploughing at the same time so that a lane is cleared and salted in each direction. If the weather deteriorates without being forecast earlier, drivers should be turned out.

8.5 Decision Making

8.5.1 Introduction

During the winter period, Highways Operations staff will interrogate the midday weather forecast issued by the forecast provider. The gritting action will be developed from this forecast and circulated by email to the contacts

8.5.2 Forecast

The forecast will supply the following information:

- Hazards

- Air and Road Temperatures
- Weather Forecast
- Wind
- Four-day outlook

The forecast provider will notify any material changes in the forecast at any time to the winter maintenance control room at Newark or the duty winter service controller (as per the rota). A back up contact point exists via the Bureau. If necessary, the evening forecast will be interrogated at 7pm. If any change in action is required, the County Duty Officer will be contacted.

8.5.3 Duty Winter Maintenance Controllers

A rota of winter maintenance controllers is circulated within Highway Operations before the start of each winter season.

8.5.4 Police Requests for Road Salting

If the Police request further treatment on Priority 1 Routes due to ice then they will be retreated without delay. If a request is received from the Police to salt a location not on a Priority 1 route the procedure for dealing with the request will be as follows:

- i) Obtain the name and contact number of the Officer concerned and note this in the duty log.
- ii) Speak to the Officer concerned (or via the Control Room) and ascertain whether it is judged that the incident was a 'one-off' or whether there are circumstances present that could lead to road users driving sensibly according to the local weather conditions having a high risk of an accident. Examples of this might be an icy patch caused by a water leak or drainage problem, isolated black ice or freezing rain on a sharp bend or steep gradient. More than one accident at a location may lend support to the presence of unusual circumstances warranting salting, but this is not conclusive.
- iii) If the Duty controller is satisfied that the location warrants salting, a gritter should be sent to the scene as soon as possible, but also bearing in mind that there may be a delay in attendance due to the additional mobilisation time required. The Police should be informed of this and advised of an expected time on scene wherever possible.

Maximum co-operation will be extended to the Police in these circumstances and the presumption should be that we will respond to requests unless the above circumstances are not met. Any decision not to attend should be made in discussion with the Officer concerned.

8.5.5 Process during Normal Working Day

The morning forecast from the forecast provider will be interrogated and the gritting instruction made by the Duty Controller. In the event of a marginal or extraordinary forecast, another member of staff will verify the decision. The Duty controller will be responsible for issuing the instruction via e-mail and to organise the shifts if necessary.

The County Duty Officer must be aware at all times of the gritting instruction proposed. It will be their responsibility to deal with any media related issues arising outside working hours. The Duty Controller will inform the County Duty Officer of the forecast, instruction and any update.

8.5.6 Process During Night Shift Period

The Night Shift Controller will sign on at 19:00 hrs and will be responsible for verifying the forecast. They will act on the instruction issued earlier in the day but will have the discretion to

amend the instruction to amend the instruction in order to respond to changing weather conditions. The forecast provider should contact the Duty Night Shift Controller with any amendment.

8.5.7 Process for Evening and Morning Periods Outside Core Night Shift Hours

The Duty Controller will check the evening update from the forecast provider on marginal nights. If there are problematic conditions after 05:00 hrs, then the Night Shift will be extended until 07:00 hrs.

8.5.8 Process for Outside Night Shift Period

There will be a Duty Controller to cover the night and daytime periods, changing shifts at 07:00 hrs and 19:00 hrs. The Duty Controller covering the period 07:00 to 19:00 hrs will be responsible for interrogating the forecast at 12:00 hrs and producing the gritting instruction.

8.5.9 Process for Weekends

The Duty Weekend Controller will receive a hand-over from the Duty Night Shift Controller at the end of the Night Shift at 05:00 hrs with a report of the nights events and anticipated forecast for Saturday morning.

The Duty Weekend Controller will interrogate the forecast at 12:00 hrs on Saturday, deciding on the gritting instruction. This instruction will then be issued to all on the list. The Controller will verify the forecast at 20:00 hrs and amend the instruction as necessary.

The rota for Duty Controllers will enable an additional Standby Weekend Controller to operate a night shift should the weather conditions dictate.

The Duty Weekend Controller will check the forecast on the Sunday and issue the gritting instruction to all on the list, they will also contact the regular Duty Night Shift Controller to advise of the forecast and conditions. The Duty Night Shift Controller signs on for the Night Shift at 20:00 hrs Sunday.

8.6 Operational Record Keeping and Reporting

Comprehensive and accurate records of all winter Service Operations are retained. These include the timing and nature of all decisions, the information on which they are based, and the nature and timing of all treatments.

8.7 Plant and Vehicle Manning Requirements

Via will operate a night-shift for gritter drivers between early November and late March. At other times, a standby rota is in place to provide operational resources. Single manning of vehicles is operational policy for pre-cautionary treatment.

8.8 Materials Management

The management of the salt stock and its replenishment is an essential element of effective winter service operations, accordingly minimum stock levels are specified for each depot. These are shown in the salt stock profile section 10.1

Salt usage records are maintained throughout the week and new stock is ordered from the supplier to maintain the desired stock level.

8.9 Schedules of Contract and Voluntary Personnel (CVP)

District Managers will co-ordinate mobilisation of additional snow clearance resource and liaison with Parish Council Snow Wardens. Out of Hours this function will be undertaken by the County Duty Officer.

8.10 Training and Development Arrangements

Training and development needs, in particular those relating to health and safety, of all personnel are reviewed annually in order that any necessary training can be provided prior to the winter service season.

All operators of winter service gritting equipment are required to hold the relevant City and Guilds 6157/6159 Winter Maintenance Qualification requiring renewal at five yearly intervals. The City and Guilds 6159 qualification includes all types of Winter Service vehicles. Staff identified as only operating plough equipped vehicles will receive initial training with annual refresher training to undertake those duties.

Controllers making winter service decision are required to attend training given by the Meteorological Office in the Open Road winter forecasting process and to possess relevant experience in provision of winter service. All controllers will be required to satisfactorily complete the IHE accredited Winter Service Decision Makers course.

Health and Safety training is provided as part of normal working procedures.

8.11 Health and Safety Procedures

8.11.1 Introduction

The following are general safety instructions for the operation of all vehicles and items of plant involved with winter service duties whether Via owned or on a hire agreement.

8.11.2 Instructions

These instructions are intended to supplement existing codes of practice and instructions and on no account must operations or works associated with winter service duties contravene any statutory duties or the general requirements of health and safety

- i) All drivers should be fully and completely trained in the safe operation of vehicles and plant and hold the appropriate licence
- ii) High visibility and protective clothing must be worn by all operators whilst carrying out winter service duties
- iii) The driver must report any defects that affect the safe operation of vehicles to the shift controller as they occur or are discovered
- iv) Lights, reflectors and hazard-warning beacons shall be cleaned and made visible each day
- v) Windscreens and side windows must be kept clean at all times
- vi) Do not allow loose equipment to accumulate inside the vehicle cab. These items may become lodge in controls and endanger not only the driver but also the general public
- vii) Do not overload the vehicle. Check and record the weight before leaving the depot where possible
- viii) Take care whilst using the ladder and access equipment fitted on the vehicle – it may be slippery
- ix) On no account must anybody climb in to the hopper of a gritter whilst the PTO is engaged.
- x) In the event of a breakdown the shift controller must be informed immediately

8.11.3 Risk Assessments for Winter Maintenance Operations

Risk assessments for winter service activities are detailed in Appendix 4

8.11.4 Drivers' Hours

The majority of treatments will be considered pre-cautionary salting of the network. However, throughout the winter season emergency situation may occur when severe weather is forecast. In such situations, it is essential that Via are able to react to the conditions on the highway network, and therefore it may be necessary to employ drivers on duties that may exceed the recommended driving hours.

The EU drivers' hours rules do not apply to 'Vehicles used in emergencies or rescue operations' (Article 3(d) Regulation (EC) 561/2006). The DfT's view is that vehicles engaged on work closely associated with the immediate response to a specific emergency or rescue operation will benefit from this exemption where they are working on alleviating either the immediate impact or effects of the emergency. The application of the exemption under Article 3(d) will only be temporary and will last until the situation is under control and there is no longer a need for immediate preventative action.

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Section 9 – Facilities, Plant, Vehicles and Equipment

9.1 Winter Service Compounds and Facilities

Operational depots for the provision of the winter service are Markham Moor, Stephenson Way, Gamston and Bilsthorpe.

Facilities at each of these compounds are:

Markham Moor Depot, Tuxford

- Garaging and under cover parking for gritting vehicles
- Vehicle repair and servicing at Bilsthorpe Depot
- Fuelling facilities
- Vehicle washing facilities
- Mess facilities for night shift drivers
- Loading shovel
- Covered salt storage for up to 5500 tonnes

Stephenson Way Depot, Newark

- Vehicle repair and servicing at Bilsthorpe Depot
- Fuelling facilities
- Vehicle washing facilities
- Outside parking for gritting vehicles
- Mess facilities for night shift drivers
- Loading shovel
- Weighbridge
- Covered salt storage for 3500 tonnes

Gamston Depot, West Bridgford

- Outside parking for gritting vehicles
- Vehicle repair and servicing at Bilsthorpe Depot
- Fuelling facilities
- Vehicle washing facilities
- Mess facilities for night-shift drivers
- Covered salt storage for 3500 tonnes
- Weighbridge
- Loading shovel

Bilsthorpe Depot, Bilsthorpe

- Outside parking for gritting vehicles
- Vehicle repair and servicing facilities
- Fuelling Facilities
- Vehicle washing facilities
- Mess facilities for night-shift drivers
- Covered salt storage for 5500 tonnes
- Loading shovel
- Weighbridge

9.2 Fleet Inventory

The winter service fleet comprises four loading shovels, one based at each of the winter service operational depots and 30 gritting vehicles, including a reserve of 7 vehicles to assist in extreme conditions and to cover for front line vehicles during repairs and servicing. At least one spare vehicle is based at each winter service operational depot. All vehicles are fitted with plough sub-frames and equipped with plough blades.

9.3 Garaging, Servicing and Maintenance Arrangements

Fleet Services shall maintain servicing data and allocate a programme for future servicing at Bilsthorpe Depot. The replacement of gritters is undertaken over fixed periods. The relative merits of dedicated and de-mountable equipment must be borne in mind in the light of the frequency and duration of severe weather conditions in this area.

9.4 Contract and Hire Arrangements for Contract Plant

9.4.1 Contract Hire Agreements

Appropriate equipment is obtained through Fleet Services

9.4.2 Insurance in Respect of Hired Plant

The Contractor shall indemnify and keep indemnified the Employer against all losses, claims, demands, proceedings, damages, costs, charges and expenses howsoever caused in respect of or in connection with injury to or the death of any person (including a person employed by the Contractor, Employer, or any Contractor or Sub-Contractor), or damages to property whether real or personal (including property belonging to or in the possession of any person or persons employed by the Contractor, Employer, or any Contractor or Sub-Contractor) happening consequent on or in connection with the carrying out of the Contract unless due to any act of neglect of the Employer, his servants or agents, or other contractor or sub-contractor (not being employed by the Contractor).

The Employer shall not be liable for loss or damage howsoever caused to the Contractor's plant hired under the conditions of the Tender other than loss or damage due to the negligence of the Employer, provided that for the purpose of the foregoing condition the Employer shall not be deemed negligent by reason only of leaving such plant unguarded or unattended on site by any period.

9.5 Calibration Procedures

Calibration is essential to providing an efficient Winter Service operation and attention must be given to the tests to ensure that each vehicle is achieving the correct rate and width spread. The calibration of equipment should be carried out at least annually in advance of the winter season. The spread pattern should be checked visually throughout the season and re-calibration carried out as required.

Calibration should be carried out in accordance with the recommendations included in relevant codes of practice i.e. Well Maintained Highways and guidance contained within Appendix H of that document.

9.6 Fuel Stocks and Locations

The fuel capacity and locations are listed as follows:

- Markham Moor - 9,000 litres diesel/5,500 litres gas oil
- Stephenson Way - 9,000 litres diesel/8,000 litres gas oil

-
- Gamston Depot - 5,000 litres diesel/3,000 litres gas oil
 - Bilsthorpe Depot - 14,500 litres diesel/9,900 litres gas oil

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Section 10 – Salt and Other De-Icing Materials

10.1 Location and Capacity of Salt Stocks

Covered salt storage facilities are located at the following locations:

- Markham Moor
- Stephenson Way
- Gamston
- Bilsthorpe

Uncovered salt storage facilities are located at Giltbrook

Details of salt stock levels

Depot	Max (t)	Usage P1 (t)	Usage P2 (t)	P1/P2 Only Trigger (t)	P1 Only Trigger (t)	A+B Road Only Trigger (t)	A Road Only Trigger (t)
Markham Moor	5500						
Bilsthorpe	5500						
Newark	3500						
Gamston	3500						
Giltbrook	2000						
Totals	20000	195	55	7500	3500	2700	1500

10.2 Loading Arrangements

The spreading vehicles are loaded with telescopic handlers. Weights are determined using a combination of load cell or gritter on-board weighing equipment. All winter service operational depots, with the exception of Markham Moor, have weighbridges to verify vehicle loads before exiting depots.

10.3 Treatment Requirements Including Spread Rates

The pre-treatment routes have been designed to enable runs to be completed spreading salt at a rate of 20gms/sqm.

In accordance with guidance in Appendix H of the Code of Practice, the normal precautionary spread rate for dry roads where temperatures are above minus 2 degrees, with no precipitation forecast shall be 10gms/sqm. Prior to snowfall or where freezing is expected immediately following rain, 20gsm to 40gsm shall be used. Where continuous snow is forecast, salting rates should be in the range 20-40 gsm in order to melt initial snowfall and provide a wet surface. If snow becomes hard-packed or turns to solid ice under traffic, then salt used in isolation is not effective and salt/sand or other mixtures will be used.

Spread rates of less than 10gsm/sqm shall not be used.

10.4 Contacts and Purchasing Arrangements for Supplies

Salt is purchased via EU Open Procedure operated by ESPO. 6 or 10mm rock salt (coarse grade) to BS 3247:2011 Table 1 is purchased with a two year contract period. The salt used in Nottinghamshire is 6mm or 10mm Coarse Graded salt supplied by Cleveland Potash. An Alternative supplier is Aggregates R Us or Salt Union. Currently 6mm salt is used where covered storage is available.

Gritters are purchased by individual tender on an approximate seven year operational life. Snowploughs are purchased with new gritters, with annual pre-season inspection and replacement for existing stock.

Section 11 – Operational Communications

11.1 Technical Systems Information

Primary communication between personnel involved in the provision of the Winter Service is via mobile telephone. All route allocated gritting vehicles have a dedicated mobile phone. Use of the phone should comply with current Via policy on the use of mobile phones.

All gritting vehicles are fitted with a vehicle tracking system to enable location and reporting of vehicle activity. Additionally, the system provided further communication between vehicle driver and duty controller.

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Section 12 – Appendices

- Appendix 1 Circulation of Documents
- Appendix 2 Reciprocal Agreements
- Appendix 3 Decision Making Process
- Appendix 4 Risk Assessments

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Appendix 1 – Circulation of Documents

The Winter Service Plan is made available in electronic format to the following organisations or individuals

- Emergency Planning Team
- Nottingham Fire and Rescue
- Nottinghamshire Police
- East Midlands Ambulance Service
- Ashfield District Council
- Bassetlaw District Council
- Broxtowe Borough Council
- Gedling Borough Council
- Mansfield District Council
- Newark and Sherwood District Council
- Gary Wood – Head of Environment and Transport – NCC
- Martin Carnaffin – Contract Manager - NCC
- Doug Coutts – Managing Director – Via
- Dave Tebbett – Head of Operations – Via
- Suzanne Heydon – Head of Network Management – Via
- Neil Hodgson – Head of Consultancy – Via
- Kate Butler – Head of Performance and Programme Management
- Kevin Heathcote – Team Manager – Via
- Liam Douglas – Team Manager – Via
- Garry Chadburn – Team Manager - Via
- Peter Goode – Traffic Manager - Via
- Frank Fearn – Contract Agent – Via
- Kendra Hourd – District Manager – Via
- Jo Horton – District Manager – Via
- Dave Walker – District Manager – Via
- Barry Mayes – Winter Service Controller – Via
- Anthony Teague – Winter Service Controller – Via
- Mark Woodward – Relief Winter Service Controller – Via

Appendix 2 – Reciprocal Agreements

Roads in other Authority areas gritted by Via East Midlands

Nottingham City Council

- Trent Bridge – main carriageway from Radcliffe Road to London Road (Meadow Lane traffic lights). A second vehicle also travels over Trent Bridge and uses the 'Meadows' traffic lane to turn but does not grit that section, it then grits the main carriageway only (not the turning lane) back over Trent Bridge from Meadow Lane to Radcliffe Road.
- A6011 Lady Bay Bridge Road – from traffic lights on Meadow Lane over Lady Bay Bridge
- B679 Wilford Lane – from Loughborough Road to southbound slip road to Ring Road at mini-island and back along dual section from mini-island to Ashdown Close (The dual section between the mini island and Silverdale Roundabout is part of the Trunk Road Network)
- Colwick Loop Road – from Racecourse Roundabout to Mile End Road at junction with Vale Road
- Oxclose Lane – from boundary to Edwards Lane, turn and salt dual on return
- B683 Bestwood Road – from boundary near Bestwood Village to A611 Moorbridge
- C4 Gotham Road – from boundary to Farnborough Road, Clifton
- C126 Farnborough Road/Green Lane Roundabout – Clifton to boundary at Ruddington
- Carlton Road – Boundary to Cardale Road, Oakdale Road and Parkdale Road to Boundary

Derbyshire County Council

- A60 – from Worksop to Cuckney including section though Derbyshire at Belp
- A616 Sheffield Road – at Cresswell into Derbyshire as far as Craggs Road
- A632 – into Derbyshire up to eastern side of railway bridge at Nether Langwith

Doncaster Metropolitan Borough Council

- B6463 – from Nottinghamshire/Doncaster boundary to A631 Spital Hill
- A631 – from Nottinghamshire/Doncaster boundary to A638 at Bawtry
- A638 – at Bawtry from Nottinghamshire/Doncaster boundary to A631
- C89 – Newington Road from A614 to County boundary

Leicestershire County Council

- A6006 – from Nottinghamshire/Leicestershire boundary at Zouch to A6
- C73 Plungar Road/Granby Lane – from Nottinghamshire/Leicestershire boundary to turning point at Barkestone Lane in Plungar (Priority 2)

Lincolnshire County Council

- A1133 – length in Lincolnshire near Girton
- A1134 – from Nottinghamshire/Lincolnshire boundary to A57 at Newton-on-Trent
- A57 – from western junction with A1133 West to County boundary
- A631 – from Nottinghamshire/Lincolnshire boundary over Gainsborough Bridge to A156

Rotherham Metropolitan Borough Council

- C15 (C100) – from respective boundaries to Gildingwells crossroads
- C153 Thorpe Lane – from respective boundaries to Back Lane at Netherthorpe

Roads in Nottinghamshire salted by other Authorities

Derbyshire County Council

- A619 – from Derbyshire/Nottinghamshire boundary at Darfoulds to junction with A60
- C158 Broad Lane – at Hodthorpe from Derbyshire/Nottinghamshire boundary to junction with A60
- A608 – from Langley Mill to island at A608/A610
- A610 – from Derbyshire/Nottinghamshire boundary at A608 Eastwood to a point at the north of the northbound on slip road and the southbound off slip road
- A610 – northbound on slip road and the southbound off slip road at junction with A608
- B6014 Mansfield Road – from Tibshelf to Newtonwood Lane and Newtonwood Lane to Nottinghamshire/Derbyshire boundary
- A608 to A610 – northbound on slip road
- A610 to A608 – southbound on slip road
- A6096 – from boundary at Ilkeston up to (but not around) the roundabout at Shiloh Way/Coronation Road
- C110 Awsworth Road – between A6096 and Derbyshire/Nottinghamshire boundary
- A38 – from Derbyshire/Nottinghamshire boundary to B6027 Common Road
- C151 Pinxton Lane – from Derbyshire/Nottinghamshire boundary to A38

Doncaster Metropolitan Borough Council

- A60 – from County boundary south to Oldcotes crossroads
- B1396 – length in Nottinghamshire north of Mission

Leicestershire County Council

- A60 – from Leicestershire/Nottinghamshire boundary to Rempstone crossroads
- C75 Back Lane – from Leicestershire/Nottinghamshire boundary to West Thorpe/Hades Lane crossroads
- Hades Lane – at Willoughby-on-the-Wolds from Leicestershire/Nottinghamshire boundary to C75 Back Lane
- C98 Clawson Lane – from Leicestershire/Nottinghamshire boundary to Hickling
- C55 – Redmile to Whatton-in-the-vale road from Leicestershire/Nottinghamshire boundary to A52
- C220 (old A52) – from Leicestershire/Nottinghamshire boundary at Bottesford to A52 near Elton

Lincolnshire County Council

- A17 – from County boundary west of Beckingham in Lincolnshire to the roundabout at the junction with C208 Beacon Hill Road/Stapleford Lane including the western side of the roundabout
- In times of prolonged freezing:
 - C158 (C82) from Lincolnshire/Nottinghamshire boundary near North Scarle to the A1133 at Besthorpe
 - C163 (C128) from Lincolnshire/Nottinghamshire boundary to Swinderby to the A1133 at Collingham
 - C123 (C44) from Lincolnshire/Nottinghamshire boundary near Stapleford to the A17 near Coddington

Nottingham City Council

- Oakdale Road – from boundary to Douglas Avenue to Greenwood and Mays Avenue
- Muirfield Road – loop from Bestwood Park Drive West and Bewcastle Road loop from Muirfield Road
- Queens Drive Road – from boundary at Middlehall Crescent to Bestwood Lodge Drive

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- A611 – from boundary at turning circle to roundabout at Hucknall Bypass and return A6001 Western Loop Road (Low Wood Road) from boundary at Hempshill Lane to roundabout at A610 Nuthall and return

Rotherham Metropolitan Borough Council

- A57 – from county boundary south of Woodsetts to Gateford roundabout
- A634 (Maltby Road) – from County boundary to A60 Oldcotes crossroads
- B6463 (Lamb Lane) – from County boundary to A60 south of Oldcotes
- C154 (C70) Woodsetts Lane from Owday Lane crossroads to Gateford roundabout

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Appendix 3 – Decision Making Process

Road Conditions ↓	Road Surface Temperature →	May fall below 0°C (Note 5)	Expected to fall below 0°C				
	Precipitation etc. →	No rain	No rain	Expected hoar frost	Expected rain	Expected rain	Possible rain
		No hoar frost	No hoar frost	Expected fog	Before freezing	During freezing	Possible hoar frost Possible frost
		No fog	No fog				

Wet	1	1	1	3 Note 3	1 & 4 Note 4	6
Wet patches	2 Note 1	2 Note 1	2 & 4 Note 2	3 Note 3	1 & 4 Note 4	5 Note 7
Dry	7 Note 1 & 7	7 Note 1 & 7	4 Note 2	3 Note 3	1 & 4 Note 4	5 Note 7
Pre-salting completed within last 16hrs of 20:00hrs with no rain since	7 Note 1 & 7	7 Note 1 & 7	7 Note 1 & 7	3 Note 3	4 Note 4	5 Note 7

2. Salt wet patches evening before any RST drops to 0°C.
3. Salt after rain stops.
4. Salt early morning.
5. Liaise with forecaster/adjoining Authorities and delay decision until better information available. If 'possible' conditions become 'expected' then refer to Table and act accordingly. Carry out site checks re. conditions where appropriate.
6. Check situation regarding rain and liaise closely with forecaster. Salt early morning or after any rain ceases, timed to complete salting runs before any RST drops to 0°C.
7. No action.

Fig. 6.5. – Decision making procedure – winter service action

Notes for Guidance for Fig. 6.5. Decision making procedure – winter service action

1. Particular attention should be given to the possibility of water running across carriageways e.g. off adjacent fields after heavy rains, washing off salt previously deposited. Such locations should be kept under scrutiny and may require treating in the evening and morning, and possibly on other occasions.
2. When a road danger warning contains reference to expected hoarfrost considerable deposits will usually occur. Hoarfrost usually occurs in the early morning and is difficult to cater for because of the probability that any salt deposited on a dry road too soon before its onset may be dispersed before it can become effective. Particular vigilance is required under this forecasted condition which is ideally treated just as the hoarfrost is forming. Such action is usually not practicable and salt may have to be deposited on a dry road before the condition forms. Hoarfrost may be forecast to occur at other times in which case the timing of salting operations should be adjusted accordingly.
3. This situation will require constant monitoring and liaison with forecaster and other authorities to ensure that salting begins as soon as rain has ceased.
4. Under these circumstances rain will freeze on contact with the road surface and full pre-salting must take place even on dry roads. Constant vigilance must be maintained throughout the danger period.
5. If forecast is uncertain, then liaise closely with forecaster and, if time allows, delay making a decision until later, more accurate information is available.
6. In conditions of continuous sub-zero temperatures forecast for four days or more, then salt "Snow" Priority Route 2 routes on Day 1, Day 4 etc. Consider also treatment of major pedestrian areas and known severe gradients on major pedestrian routes and problem areas.

Appendix 4 – Risk Assessments