



**ABERDEEN CITY COUNCIL
Roads Winter Service Plan
2019 – 2020**



**Specification
&
Operational Plan**



OPERATIONS

ROADS OPERATIONS

WINTER SERVICE PLAN

2019-2020

CONTENTS

PART 1: SPECIFICATION

PART 2: OPERATIONAL PLAN

ABERDEEN CITY COUNCIL
OPERATIONS AND PROTECTIVE SERVICES

ROADS OPERATIONS
WINTER SERVICE PLAN

2019 - 2020

PART 1 SPECIFICATION

WINTER SERVICE PLAN

PART 1 SPECIFICATION DOCUMENT

1. Policy

- 1.1 The City Council's policy is stated in the report submitted to the Roads Sub-Committee of the Policy and Resources Committee on 19th September 1996 and Policy & Strategy Committee of 5th June 2008.
- 1.2 The Council's policy objectives in relation to winter service is defined as the reduction, as far as practicable, of the effects of adverse weather conditions on the movement of people and vehicles to facilitate safe travel on the more important roads in the City.

2. Priorities and Standards

2.1 General

The Committee agreed that the priorities for treatment and standards of treatment be determined in accordance with the relative importance of any particular road in the Road network, and that the relevant Corporate Director be requested to endeavour to curtail the level of expenditure within the sum provided in the annual budget, bearing in mind the conditions which pertain and the policies set down in the report.

- 2.1.1 Priority 1 routes will be principal roads or other classified roads serving as the main routes of major traffic distributors. Priority 1 routes should also carry heavy traffic flows or serve as major public service bus routes or give access to public service or emergency facilities providing an essential public service. In special circumstances a road which does not meet the above definition may be considered a priority 1 route if it is regularly used and presents special hazards because it is habitually liable to drifting snow or freezing because of altitude or exposure etc. A road need not be considered a priority route at all times.
- 2.1.2 Priority 1 routes shall be separated into two levels those of strategic importance (Strategic Roads and Main Distributor Roads and access roads to emergency services facilities in addition to the detrunked sections of the A92 and A96) and Priority 1 Silver, those of less than strategic importance (Historic Priority 1 routes less Priority 1 Gold routes and Link Roads and Local Access Roads that do not have any special circumstance such as steep slopes, etc. These routes are identified in Appendix C.
- 2.1.3 The standard to be aimed at on Priority 1 routes is that:

For the Priority 1 Gold routes for 24 hours 7 days a week during the winter.
For the Priority 1 Silver routes between the hours of 04.45 and 21.00 7 days a week.

These routes should never become impassable to traffic, during the times indicated, unless there are abnormal conditions. Snow and ice clearance should be started as soon as practical when the need for it becomes apparent. Equipment and resources should be provided and should be capable of being deployed sufficiently quickly to be able to

salt for ice or clear a moderate snowfall of up to 50 millimetres depth (2 inches) within two and a half hours of the physical start of operations.

- 2.1.4 There should be, for these routes an availability of crews and equipment with the Response crews and standby arrangements being such that the response time for an instruction from a responsible officer of the authority to commence winter service operations to the start of snow or ice clearing on site should not be greater than one hour, during the times indicated in clause 2.1.3.
- 2.1.5 Consideration will be given to the pre-salting of priority 1 routes on receipt of an adverse weather forecast to prevent the formation of ice, or to make the clearing of snow or ice from the surface of the road less difficult.
- 2.1.6 A list of priority 1 Gold and Silver routes should be drawn up. The routes will be collated into convenient lengths to be dealt with by one or more salt stores and the need to keep mileage, which is run empty for reloading to an absolute minimum.
- 2.1.7 The priority 1 Gold and Silver routes should be reviewed annually in the late summer/autumn months to take account of changes in the road layout e.g. change from single to dual carriageway or in the light of new development and particularly the opening of new community facilities e.g. schools, health centres or similar, or in the light of changes in the road network and amendments to the routing of Public Transport.
- 2.1.8 Priority 2 routes will be principal and other classified roads not included in the priority 1 routes but which serve as main roads or as traffic distributors and which carry medium traffic flows or give access to community or public facilities of a non essential nature. These routes will contain the (Category 3b Secondary Distributor routes 4a Link Roads)
- 2.1.9 In order to provide an efficient and effective use of labour and plant several of the Priority 2 Routes may be included in the Priority 1 Gold and Silver routes, the remaining Priority 2 routes will only be treated once the combined Priority 1 & 2 routes have been opened to traffic. The remaining Priority 2 roads will be dealt with on an "Area Response" basis with the allocation of resources to the defined areas being subject to the prevailing weather conditions. Treatment of an Area is not subject to a time for completion due to their size and complexity. Additional resources from external Contractors may be employed to assist in the operation.
- 2.1.10 Priority 3 locations (Category 4b Link Roads) such as access roads, service roads, cul de sacs and minor roads where it could be expected that residents and employees etc could make their way with some difficulty in all but abnormal conditions to the nearest higher priority route.
- 2.1.11 The standard for Priority 3 locations would be that they would not normally be treated unless conditions were severe enough to prevent the passage of emergency vehicles, where it was considered in the light of prevailing weather forecasts that the conditions might be expected to persist for some time or that there was an exceptional depth of snow packed snow or ice. In the case of a medical emergency or an event such as a funeral the location in question would be treated. Priority 3 locations due to width of access, or they are dead ends will not always be accessible with normal winter

maintenance plant and would not be treated until all routes of a higher priority had been opened to traffic.

- 2.1.12 Non-Aberdeen City Council maintained roads and roads or lanes providing a secondary means of access for service vehicles together with roads on which there are no direct accesses to any habitations would not be treated except in the case of a medical emergency.
- 2.1.13 In extreme weather conditions only, Priority 1 routes will be treated. Should salt stock levels diminish, salt treatment of Areas will be stopped, then Priority 2 routes, until only priority 1 routes are being treated.

2.2 Priorities and Standards – Footways & Cycle Ways

- 2.2.1 The priority with regard to the treatment of footways is that, precedence will be given to those footways in the City for which the Council is responsible and which carry the greatest number of pedestrians. This means the central areas of the City where the shopping and commercial facilities etc are concentrated. Precedence will also be given to footways and gradients, which are so steep, that they would be dangerous when covered with ice or hard packed snow. This may be altered by the duty superintendent or the duty officer depending on the circumstances that are being encountered.
- 2.2.2 The standard to be aimed at for footways on the Priority 1 list is that, these footways should be kept in a safe condition for pedestrians. In “normal” conditions snow or ice clearance should be started as soon as practicable when the need for such treatment becomes apparent. Equipment and resources should be provided and should be capable of being deployed sufficiently quickly to be able to begin treatment of a moderate snowfall between the hours of 07.45 and 15.45 Monday to Friday. At weekends the duty superintendent or the duty officer will determine if additional resources can be sourced.
- 2.2.3 All other footways in the city will be considered to have a lower priority although again precedence will be given to the more heavily trafficked routes, footways in the vicinity of major public services, medical or community facilities providing an essential public service and where numbers of infirm, elderly, accompanied infants and young children are likely to congregate. These footways will be treated only when the Priority 1 routes have been treated and made safe for pedestrian movement and will be dealt with on an Area Response basis with the allocation of resources to the defined areas being subject to the prevailing weather conditions. Treatment of an Area is not subject to a time for completion due to their size and complexity.

During forecasts of snow or ice or for periods of snow or ice council employees will be deployed to treat Priority 1 footways and then continue into the Areas, additional resources from external Contractors may be employed to assist in the operation.

- 2.2.4 Other equipment and resources should be deployed to deal with particular situations as conditions dictate, particularly where treatment has not been carried out and there is a public need for such treatment at individual locations, e.g. bus stops, pedestrian crossings, traffic islands and the like.

- 2.2.5 Privately maintained footways will not normally be treated.
- 2.2.6 Cycle ways in the city will be considered to have the same priority as lower priority footways. These cycle ways will be treated only when the Priority 1 routes have been treated and will be dealt with on an Area Response basis in conjunction with the footways in that area. The allocation of resources to the defined areas will be subject to the prevailing weather conditions. Treatment of an Area is not subject to a time for completion due to their size and complexity. In keeping with Priority 3 carriageways, it would be expected that cyclists could make their way with some difficulty in all but abnormal conditions to the nearest higher priority route. A list of the cycle ways to be treated was approved at the EP & I Committee on 12 November 2013 and is included in Appendix C.

2.3 Self Help

- 2.3.1 On lower priority routes both on carriageways, lay-bys and footways, grit bins should be provided where they can be sited without inconvenience or danger to residents and road users. Due to the demand on resources to fill grit bins, it has been decided not to increase the number of grit bins. Alternatively, 1T salt bags will be made available for community use (see 2.3.4). The location of the grit bins can be viewed on the council's web site at: <https://maps.aberdeencity.gov.uk/LocalViewWeb/Sites/Gritboxes/>
- 2.3.2 Grit bins are maintained and kept filled by the Council so that the salt, salt/sand mixtures are readily available to Council employees, local residents or any other road user should they choose to use the facility. The locations and condition of all grit bins should be reviewed annually in late summer/autumn. It should be noted that whilst making use of grit bins, care should be taken as it is common for them to be used by some members of the public for the disposal of rubbish, such as glass, sharp metal and, in some instances, syringes which could result in injury to the user should they inadvertently come into contact with this material. Hazard warnings should be positioned on the lid of the grit bin
- 2.3.3 It is recommended that all grit bins be highlighted for public use with a telephone number to call allowing members of the public to inform on the location of the empty grit bin. Calls will be monitored on a daily basis during the winter and twice daily during periods of snow and ice. Holidays and weekends will be excluded as resources are limited.
- 2.3.4 1 Tonne bags of salt will be issued on request to Community groups for self help winter treatment. These bags will be issued and replenished on condition that they are situated in a secure location which is accessible to the Council delivery lorry. A communal area such as a car park would not be acceptable as the bags will be susceptible to theft and vandalism. Additionally, a number of smaller bags shall be offered to the person requesting the 1 Tonne bag to aid distribution of the salt in the community.
- 2.3.5 Large Community Grit Bins have been located throughout the city these are specifically located to allow rapid replenishment from small lorries during storm conditions. The locations are listed in Appendix (D,a)
- 2.3.6 Individual salt buckets containing approximately 10kg of salt are available from depots. The 10kg is sufficient to treat the footway fronting a property for a number of days.

3. Treatments of Conditions

3.1 Precautionary Salting - Priority 1 routes and locations of particular hazard.

Precautionary treatments should be carried out to as per Appendix (D,b) Column C. This table is based on guidance issued by the Society of Chief Officers of Transportation in Scotland (SCOTS) Winter Service Subgroup.

Column C is appropriate when the Salt Cover is Poor, Traffic Levels are Low/Medium and the Salt Loss due to traffic is Normal.

Precautionary Treatment for Hoar Frost and Ice.

- 3.1.1 If the road temperature is at or above -2C and the road is damp, salt at a rate of 10 grams per square metre. If the temperature falls between -2C and -5C and the road is damp, salt at 15/20g per square metre. If the road is damp and the temperature is below -5C, salt at 20g per square metre, monitor conditions and retreat if required.

If the road temperature is at or above -2C and the road is wet, salt at a rate of 15 grams per square metre. If the temperature falls between -2C and -5C and the road is wet, salt at 20g per square metre. If the Road is wet and the temperature is below -5C, salt at 20g per square metre, monitor conditions and retreat if required.

When rain is forecast prior to frost/ice, treatment should be timed to commence at the cessation of rainfall subject to being completed within the council's hours of coverage.

- 3.1.2 When frost/ice is predicted after rain precautionary salting rates should be increased to 20-40 g/sq. m according to the temperatures expected. 20 g/sq. m will operate down to -2 degrees Celsius, 40 g/sq. m operates to -5 degrees Celsius. Salting should be delayed as long as possible to reduce loss of salt by run-off unless freezing conditions coincide with the rainfall. Road conditions are to be monitored and retreated if required. The situation is to be monitored and retreatment carried out if required.

3.2 Precautionary Treatment for Snow.

- 3.2.2 When continuous snow/freezing rain is forecast precautionary salting rates are to be 20-40 g/sq. m according to the anticipated severity of the snowfall as per Appendix (D,c)
- 3.2.3 The maximum salt spreading rate recommended for melting up to 50mm of fresh snow is 40 g/sq.m. Repeated applications of salt can remove heavy accumulations of snow, however, this approach is not recommended and ploughing should be undertaken as the depth of snow starts to exceeds 10mm. 20g per square metre of salt should be applied in advance of a snowfall to allow the formation of a debonding layer and assist subsequent ploughing. Where more than 50mm of snow has accumulated, compaction by traffic is likely to become problematic.
- 3.2.4 These spread rates are dependant on available salt stocks, during periods of sustained snow salt availability may be restricted due to availability or instructions from outwith the council, and periods of salt conservation may be necessary as per section 7.0)

3.3 Treatment for Ice and Compacted Snow Conditions

When ice or compacted snow has already formed the surface should be treated as per the guidance in Appendix (D,d).

- 3.3.1 When temperatures drop below -5 degrees Celsius it is advisable to use grit or salt/grit mixtures. The grit used in these circumstances should be single particle size 6mm – 2mm having low fine content. The particles should be angular suitable for an abrasive. Grit shall only be used when absolutely necessary due to additional problems arising, such as sweeping and gully emptying and the subsequent additional costs for waste disposal.

3.4 Updated guidelines on salt spread rates

- 3.4.1 The Society of Chief Officers of Transportation in Scotland (SCOTS) have produced recommendations on the most appropriate and practical approach to implementing salt spread rates. Following consultation with the National Winter Service Research Group (NWSRG), concerning the implementation of Well Managed Highways, the SCOTS Winter Subgroup have suggested a number of developments and those relevant to salt spread rates.

Minimum spread rates of unmodified salt are suggested in Appendix (D,b) treatment matrix for different operational scenarios out-with resilience situations.

Detailed below is the justification provided by the SCOTS Winter Service Subgroup for advising these variations and this is supported by Aberdeen City Council officers.

- Review conclusions based on significant experience of delivering winter service by Scottish local Authorities.
- Review conclusions based on developed best practice within Scottish local Authorities.
- Recognition that going forward that these variations to Well Managed Highways and the successor document, need to be monitored in relation to the development of equipment, research undertaken and revisions to recommended salt spread rates.
- These variations to salt spread rates need to be kept under review by the SCOTS Roads Group/SCOTS Winter Service Subgroup to continue to inform the most appropriate approach to Winter Service to be taken by Scottish Roads Authorities.
- The treatment matrix developed through the SCOTS Winter Sub group is being adopted by Aberdeen City Council and is detailed in Appendix (D,b) along with associated notes.

4. Winter Service Plant

To be effective, salt must be spread evenly at rates to suit prevailing conditions. The spreading equipment supplied should be to BS 1622:1989. The controls of spreading machines are to be calibrated annually and clearly marked for distinct spread rates up to 40g/sq.m.

5. Salt and Grit

- 5.1.1 Salt supplied to various locations throughout the City shall be to BS 3247.
- 5.1.2 Grit for use either neat or in mixtures shall be single sized abrasive or particle size 6mm – 2mm having a low fine content. The particles should be angular in shape suitable for an abrasive.
- 5.1.3 Chemical de-icing treatment may be used at selected locations including the city centre and cycleways.
- 5.1.4 Salt is purchased to restock the storage areas to their maximum stock levels in advance of the season, salt stocks are closely monitored, and restocking orders placed to maintain suitable levels.
- 5.1.5 Salt at storage areas are currently stored uncovered.
- 5.1.6 A guide to appropriate maximum and minimum and resilience stock levels are included in Appendix (D,e).

6. Communications

- 6.6.1 Work has been carried out with the Corporate Communications Team and the Service Design and Development team to provide up to date information on the Council Web Site. The information provided will enable members of the public to check on expected road conditions, confirm main gritting routes and check action currently underway. There is also a section to check the weather and road conditions.
- 6.6.2 City Voice Questionnaire including several questions relating to the general public's satisfaction with Aberdeen City Council's winter performance will be issued to the general public following the 2017 – 18 winter season. This questionnaire is repeated annually as part of the Roads Asset Management Plan to build up a picture of the trend of public satisfaction related to the severity of the winter weather. It may also indicate areas for improvement or future action within the limitations of the winter budget.

7. Resilience

- 7.1.1 If salt stock levels fall close to the resilience stock levels indicated in Appendix (D,e) the Roads Operations Manager will consider and implement the actions required to maintain traffic flow along the strategic network.
- 7.1.2 In extreme circumstances that may have a major adverse impact on the provision of the winter service the Roads Operations Manager after consultation with the Roads Infrastructure Manager may implement the actions required to maintain traffic flow along the strategic network these may include but are not restricted to:
 - Reduce salt spread rates.
 - Restrict salt spreading to the Priority 1 routes.
 - Move to using salt/grit mixes.
 - Move to using grit only on Secondary routes

- Grit only to be used on hard packed snow on priority/secondary/cul de sac routes
- Replenish Grit Bins with grit only
- Move to using grit only on priority and secondary footway routes

ABERDEEN CITY COUNCIL

OPERATIONS

ROADS OPERATIONS

WINTER SERVICE PLAN

2019-2020

PART 2 - OPERATIONAL PLAN

WINTER SERVICE DOCUMENT

PART 2

OPERATIONAL PLAN

- | | | | |
|----|--------------------------------------|-----|---|
| 1. | <u>Introduction</u> | 1.1 | Outline |
| | | 1.2 | Stages of Plan |
| | | 1.3 | Delegation of Responsibilities |
| 2. | <u>Working Arrangements</u> | 2.1 | Operating Period |
| | | 2.2 | Standby Service |
| | | 2.3 | Early Morning Patrols |
| | | 2.4 | Service Within Working Hours |
| | | 2.5 | Service Outwith Normal Working Hours |
| | | 2.6 | Footway Treatment |
| | | 2.7 | Footway Readiness |
| | | 2.8 | Thawing |
| | | 2.9 | Lifting of Snow from Roads etc |
| 3. | <u>Information</u> | 3.1 | Communications |
| | | 3.2 | Weather Forecasts |
| | | 3.3 | Advice Sheets |
| | | 3.4 | Road Condition Reports |
| 4. | <u>Plant</u> | 4.1 | Availability and Maintenance for Vehicles, Plant etc. |
| | | 4.2 | Operation of Vehicles |
| 5. | <u>Materials</u> | 5.1 | Salt and Salt/Sand Stocks |
| | | 5.2 | Use of Materials |
| 6. | <u>Assistance from Third Parties</u> | 6.1 | Local Authority Services |
| | | 6.2 | Education |
| | | 6.3 | Parks etc. |
| 7. | <u>Road Closures</u> | 7.1 | Road Closures |
| 8. | <u>Monitoring and Reporting</u> | 8.1 | Road Treatment Log |

Appendices

- A Emergency Contacts
- B Duties of Personnel
- C Gritting/Treatment Routes

WINTER SERVICE PLAN - STANDING ORDERS

PART 2 - OPERATIONAL PLAN

1. Introduction

1.1 Outline

The Operational Plan is designed to provide for a twenty-four hour a day, seven days a week service. The plan, which is designed to be flexible enough to cover all foreseeable weather conditions normally experienced in this part of the country, will operate in various phases according to the time of day and weather conditions.

The plan consists of an emergency standby service out with normal working hours, regular routine patrols by specialist gritting and snow clearing vehicles in the early hours of the morning augmented, as necessary, by the use of the Council's normal heavy goods vehicles fitted with demountable snowploughs and/or gritter bodies as appropriate. The Council's own resources can be augmented by hired labour and vehicles and plant from local contractors.

1.2 Stages of the Plan

In deploying the Council's resources and resources from other Services, Superintendents will take into account the priorities drawn up to cover all weather conditions, will seek to ensure that the road network is dealt with in the sequence and to the standards set out in Part 1, Section 2 headed "Priorities and Standards".

Superintendents in planning and executing the Winter Service Operations must give consideration to the needs of all employees to have reasonable periods of rest between periods of duty, however, in extreme and prolonged weather conditions Aberdeen City Council can declare the event an emergency to continue with winter service operations.

1.3 Delegation of Responsibilities

1.3.1 The Roads Infrastructure Manager is responsible for the work of the Roads Services throughout the City. The Roads Infrastructure Manager is responsible for formulating the policy objectives with regard to Winter Service operations and ensuring that adequate resources are allocated to meet the objectives and standards set in the Specification Document. The Roads Infrastructure Manager is also responsible for ensuring that the Specification and Operational Plan are continually reviewed in the light of experience and changing circumstances.

1.3.2 The Roads Infrastructure Manager in conjunction with the Road Operations Manager will be wholly responsible for ensuring that Winter Service operations are carried out in accordance with the policy of the Council and in accordance with accreditation in Winter Maintenance Quality Assurance under ISO 9001. They will ensure that the Duty Officers and the Superintendents and operators are conversant with the Winter Service Plan and will ensure that the standard of training, etc. of the operatives is sufficiently high to enable them to carry out their allotted tasks. The day to day responsibility for producing the daily Winter Maintenance Advice Sheet may be delegated to the Duty Officer. The

Superintendents shall be provided with the physical resources to enable them to carry out the work within the limitations of the budget and shall have the authority to utilise all the resources available to them on normal works in the event of adverse weather conditions. The day to day responsibility for the organisation and supervision of Winter Service operations may be delegated to the Superintendents.

- 1.3.3 The Superintendents are wholly responsible to the Roads Infrastructure Manager/Road Operations Manager for the day to day organisation and execution of the Winter Service operations and will take immediate action to implement the Winter Service Plan on receipt of adverse weather advice or in the event of sudden frost or snowfall. The Superintendents have complete authority to set the plan in action without reference to the Roads Infrastructure Manager or Road Operations Manager but shall at all times keep the Management fully advised of the prevailing circumstances with regard to the progress of Winter Service operations and shall seek the advice and assistance of Management in dealing with any augmented work undertaken or conditions outwith the scope of the Winter Service Plan.

2. Working Arrangements

2.1 Operating period

The winter operating period will run from October to April each year.

The core period for continual monitoring will run from early November until Late March. Additional support staff and assistance from other services will run from mid-November until late March, the exact dates will be as detailed below, these dates are subject to change depending on the forecast weather conditions.

2.2 Standby Service – 11/11/2019 to 16/03/2020

A weekly duty rota for drivers and plant operators for both the standby service and for the early morning patrols will be prepared to ensure that all specialist Winter Service vehicles can be manned on a twenty-four hour, seven days a week basis in accordance with the Winter Service Plan.

Specialist Winter Service vehicles will be stationed at appropriate depots for immediate use outwith normal working hours. The vehicles will be loaded with neat salt and drivers will be contactable to receive instructions from the Superintendent. A Superintendent will be available to receive telephone calls from the Police or other responsible Officers of the Council, assess road conditions and initiate emergency actions.

On receipt of an emergency call, the Superintendent will assess the situation and, if necessary, will call out the standby crews to treat roads as required, he may at his discretion, alert other Superintendents, as it may be necessary to call out additional drivers and vehicles.

The Superintendents will advise the Night Attendant or the Duty Officer what resources are deployed and the route/areas being treated to allow the Council's web site to be updated.

The standby drivers will report to the Superintendent the road conditions at the area of the particular hazard and in the area generally. The Superintendent will log the telephone call seeking assistance together with the details of any action taken in response to it and any action by way of treating other locations so that there is a permanent record, for inspection, of the extent of Winter Service operations carried out.

2.3 Early Morning Patrols – 11/11/2019 to 16/03/2020

The specialist Winter Service vehicles will be operated on early morning patrol service during the winter period. Each vehicle will be driven on a prescribed priority route and treatment will be carried out as instructed for the conditions encountered.

The Superintendent will advise the Night Attendant or the Duty Officer what resources are deployed, and the route/areas being treated to allow the Council's web site to be updated.

Special attention will be given to those locations, which are designated as areas of particular hazard; drivers will report the road conditions on their prescribed route to the Superintendent/Night Attendant both during and on completion of their patrols.

Additionally, the Superintendents may at their discretion, if adverse weather conditions are expected, detail additional operatives to make themselves available for standby duties/early action.

2.4 Service Within Working Hour

2.4.1 If road or weather conditions warrant it, Winter Service operations utilising the specialist vehicles will continue during the course of the working day. In addition to the specialist vehicles, the Superintendents can instruct the use of the Councils normal heavy goods vehicles on Winter Service operations. The vehicles will be fitted with snowploughs and/or gritter bodies according to the road conditions.

The Superintendents will advise the Night Attendant or the Duty Officer what resources are deployed, and the route/areas being treated to allow the Council's web site to be updated.

2.4.2 Daytime 8.00 a.m. - 4.00 p.m. Monday - Friday

The ice detection equipment will be monitored by the Road Services staff. When a change in conditions is displayed at any of the ice detection locations in his area, the Road Operations Manager or his staff will advise the Superintendents who, taking account of all factors known to him, will dispatch a gritting vehicle to inspect and treat conditions at the location as necessary and thereafter proceed to such other locations the Superintendents considers may require treatment.

2.5 Service Outwith Normal Working Hours 02/11/2019 to 14/03/2020

2.5.1 Response will provide an emergency all night service and specialist Winter Service vehicles will be ready for immediate use throughout the winter season.

The vehicles will be loaded with neat salt and drivers will be in attendance at the depot. In addition to the drivers the depot will be manned by a Duty Night Attendant who will receive telephone calls from the Met Office, Police or other responsible Officers of the Council initiating emergency action.

The Duty Officer will continue to monitor the ice detection equipment and forecast and will remain the point of contact for Winter Service along with the Duty Superintendent until the Night Attendant commences work at 20:30.

On receipt of an emergency call, the Duty Night Attendant will despatch a driver to investigate and, if necessary, treat the road surface. Immediately after the driver has dealt with the specific complaint, he will travel to those locations designated as areas of particular hazard in the vicinity of the locus of the complaint and, if necessary, treat the road surface at these locations. He will report to the Duty Night Attendant the road conditions at the areas of particular hazard and in the area generally. The Duty Night

Attendant will log the telephone call seeking assistance together with the details of any locations so that there is a permanent record for inspection by the Duty Superintendent of the extent of Winter Service operations carried out during the night.

Should it appear to the Duty Night Attendant from the number of telephone calls received requesting assistance or from the reports received from drivers that the road conditions are so bad as to require the deployment of more resources than provided by the all night service, he will immediately telephone the Duty Superintendent advising him of the conditions so that the Duty Superintendent may, at his discretion, instruct the call out of additional drivers and vehicles.

- 2.5.2 When an adverse change of conditions is displayed at any of the ice detection locations in the City, the Night Attendant will dispatch a loaded gritter to inspect and treat conditions at the location as necessary and thereafter, taking account of all other known factors, proceed to treat as necessary areas of special hazard. The Duty Night Attendant will log the change in road temperatures together with his actions and details of any locations actioned so that there is a permanent record for inspection by the Duty Superintendent of the extent of Winter Service operations carried out during the night.
- 2.5.3 Over Christmas and New Year a stand by crew will only be available to treat priority 1 carriageways and footways on the days of the 25 – 26 December and 31 December – 2 January inclusive.

2.6 Footway Treatment

The Priority 1 footways for treatment are listed in Appendix C (e).

The standard practice for treating footways will be to use neat salt although discretion is given to Superintendents to use salt/grit mixtures when weather conditions warrant it, and especially when dealing with ice that has formed as a result of the re-freezing of partially thawed snow as per Appendix D, (d)

In clearing a passage for pedestrians, any cleared snow will be left piled at the edge of the footway until resources are available for its removal. Special attention will be given at pedestrian crossings, road junctions where large number of pedestrians cross, bus stops etc where gaps should be left at these locations to allow pedestrians to cross without having to negotiate the heaped snow.

Special care will also be taken to ensure that street gullies are not blocked by piled snow, as this would prevent water draining away at the onset of a thaw.

2.7 Footway Readiness

Recourses for footway treatment are to be allocated on a three-level readiness basis. The readiness level shall be implemented and recorded following discussions between the duty officer and the Roads Operations/Roads Infrastructure Manager.

Green:

Forecast conditions to be below zero for up to 5 consecutive days.

City centre routes to be check by Superintendent each morning with treatment undertaken if required, no other routes to be treated.

Amber:

Forecast conditions of prolonged freezing extending beyond 5 days, snowfall or extensive ice forecast. Frontline staff to be made available for prolonged treatment, assistance from other departments requested as required. If other departments assistance required, they are to be notified when Amber condition is identified.

Grit bins and Community Bins, checked and filled in advance, Footway plant and equipment checked for readiness in advance, Priority 1 Footways and sheltered housing areas considered for treatment.

Additional back office staff requirement to respond to public enquiries.

Red:

Forecast conditions as Amber but with continued heavy snowfall or extreme ice in forecast resulting in a risk to infrastructure.

Action as per Amber, additionally external and supplementary resources from other departments to be mobilised as available.

Treatment to be extended to area footway treatment beyond Priority 1 routes as resources allow.

Full reporting system to be implemented, availability of resources to respond to repair to infrastructure to assessed. Additional back office staff requirement to respond to public enquiries regarding infrastructure damage after thaw develops.

2.8 Thawing

During the thaw, the first responsibility of the Superintendents will be to ensure, as far as practicable, that road channels and verges are cleared in the area of street gullies and cross grips to allow melted snow to drain away. Only after the channels and cross grips have been cleared should an attempt be made to clear the stockpiled snow.

2.9 Lifting of Snow from Roads etc

In extreme conditions after heavy snow falls it may be necessary to lift snow from streets. Snow cleared from the road will only be uplifted in exceptional circumstances, e.g. where existing piled snow is preventing further snow clearance from the road.

3. Information

3.1 Communications

During Office Hours - Mondays to Fridays inclusive, telephone messages will be received by the contact centre.

Outwith Office Hours - Telephone messages to be passed to the Duty Superintendents (Daytime) or the Duty Officer as per rota from 16:00 to 20:30 (Monday to Friday) from 08:00 to 20:30 (Saturday, Sunday & Public Holidays) and to the Night Attendant at West Tullos Depot from 20:30 to 08:00.

3.2 Weather Forecasts

The Council's meteorological advisors will provide information for the duration of the winter period including:-

- a) General Forecasts for the following 36 hours
- b) 2-5-day outlook forecast
- c) Air and road temperatures and a predicted forecast graph

During Office Hours

The Forecast data information is assessed and entered into an advice sheet prepared by the Duty Officer in conjunction with the Duty Superintendent and if required submitted to the Roads Operations Manager for discussion and a decision made as to the required treatment. Roads Operations Manager to be advised of daily action.

The information will also be passed to the Standby Superintendent by the Duty Officer.

Outwith Office Hours and Holidays

It will be the responsibility of the Duty Officer to obtain the weather forecast, consult Superintendent and confirm action. Superintendent to contact the Night Attendant at West Tullos Depot each day shortly after 20:30 hours to appraise him of the situation. If there is a forecast of severe weather the Standby Superintendent should also be informed. Roads Operations Manager to be advised of daily action.

Emergency Weather Forecasts

The Council's meteorological advisors will inform the Duty Officer from 08:00 to 20:30 or the Night Attendant from 20:30 to 08:00 to advise on changes in forecast information. Additional phone numbers should be supplied to the Met Office in case there is difficulty in contacting the Duty Officer or the Night Attendant. The Duty Officer or the night Attendant will advise the Duty Superintendent of changes to the weather forecast which may alter the proposed winter treatment.

3.3 Advice Sheets

3.3.1 Winter Maintenance Advice Sheets

Forecast information and the Winter Maintenance Advice Sheet will be used to assist in decision making. In the absence of any indication or information to the contrary the advice recommendation given on the Advice Sheets should be followed.

3.3.2 Interpretation of Advice Sheets

The Advice Sheets recommendations may not be followed if:

- (a) A clear emergency exists which requires immediate action
- (b) The Road Operations Manager advises differently.
- (c) The actual weather (e.g. as measured by Ice Outstations) is at variance from the forecast such that action taken would need to be significantly different from that advised, e.g. the stepping up of salting from 10 to 20 g/sq. m or equivalent in mixtures, or if the forecast of snow turns out to be rain then reducing or changing the treatment. In this case the meteorological advisors should be contacted, advised of actual weather conditions and new forecast information requested.

3.3.3 Variation from Advice Sheets

A record will be kept of all variations of action from the advised action on the advice sheet. The reason for such a variation will be noted on the advice sheet for record purposes.

3.3.4 General Note

The Council's meteorological advisers are available 24 hours a day and can be contacted at any time by superintendents or staff for advice. They are contracted to supply new weather information when a significant change is forecast and to give advice over the telephone on all meteorological matters. If in any doubt about the actual weather and/or the forecast the rule is contact the meteorological advisers.

3.4 Road Condition Reports

In order that the Roads Infrastructure Manager can be kept advised of the road conditions throughout the City, reports on road conditions will be passed as follows.

The Road Operations Manager will arrange for the daily road condition report and the advice sheet to be completed not later than 0800 and 1600 hours on days of continued action to be recorded on the standard pro-forma and for the information to be forwarded to Roads Infrastructure Manager.

4. Plant

4.1 Availability and Maintenance of Vehicles, Plant etc

All specialist Winter Service vehicles, plant and footway snowploughs require to be maintained and overhauled prior to the commencement of Winter Service operations. All items of Winter Service equipment overhauled shall be on station not later than the end of September in order that calibration works can be carried out to all plant at the same time.

All footway snowploughs shall be on station by the second week in October. All dedicated gritting vehicles shall be calibrated by end of October and signed calibration sheets filed for future reference.

All vehicles, plant and equipment shall be checked to ensure they are fully operational on return to station.

A stand by mechanic will be available at all times during the winter period to carry out routine maintenance and minor repairs allocated to him. Where applicable the six week safety checks on vehicles should be carried out during early morning operations when no action is being carried out, any major defect found during this period will require the vehicle to be taken to Kittybrewster for repair. Fleet Services to provide the Road Operations Manager and the Superintendents with a rota of the mechanics.

4.2 Operation of Vehicles

While it is acknowledged that the drivers of vehicles engaged in Winter Service operations do not operate under normal circumstances, it is nevertheless the driver's duty to take every precaution to avoid accidents.

Once the vehicles are on station and Winter Service operations have begun, it will be the duty of the driver and/or operator for each vehicle and item of plant to check his vehicle daily before starting duty. The inspection shall cover the fuel, oil and water levels and the lights, brakes and tyres, together with all bolts and couplings fixing ploughs, spinners and safety rails.

Any fault revealed by the check shall be immediately reported to the Superintendent who will call out the stand by mechanic to determine whether or not the vehicle is in a fit state to continue with Winter Service operations or whether the vehicle should be withdrawn from service for immediate repair at the Depot or transported to Kittybrewster. In the latter case the Superintendent, in consultation with the Repair Depot Supervisor, shall decide whether or not, depending on the length of time that any repair is likely to take, an alternative vehicle should be made available as a replacement for the unserviceable vehicle.

The amber flashing lights fitted to each vehicle must be kept in operation during gritting and snow clearing operations. In poor visibility, the vehicle's horn should be sounded as necessary, but its use should be kept to a minimum consistent with safe driving and the need to cause as little inconvenience as is possible to residents, particularly during early morning and late night working. Any vehicle engaged in Winter Service operations must

not be driven at speeds in excess of 20 mph in urban areas or where traffic is heavy, the speed should be further reduced to ensure the flying grit/sand does not injure pedestrians or damage other vehicles on the road. A "SPREADING" sign is to be fitted and kept clean on rear of gritting and large snow plough vehicles.

Snow ploughs and scrapers must always be raised above the road surface when passing over sections of road which are clear of snow and ice and drivers should constantly be on the lookout for manhole covers, street tobies or other obstructions such as traffic calming measures which may be standing proud of the road surface.

It is the responsibility of the driver of any vehicle to ensure that the hopper or the platform of this vehicle is not left loaded with salt or salt/sand mixture for more than forty-eight hours. If the salt or salt/sand mixture has not been used for this period of time, the hopper and/or platform should be emptied and immediately refilled with fresh material.

If the vehicle has been driven during heavy rain, the driver should check the salt or salt/sand mixture to ensure that caking has not taken place. If it has, the vehicle should be emptied and immediately refilled with fresh material.

Where mobile phone communication is used the driver must not under any circumstance answer the phone until parked safely and the engine is turned off as per the Council's mobile phone policy. Drivers will be issued with a radio for communication purposes.

5. Materials and Equipment

5.1 Salt and Salt/Sand Stocks

Salt

Stocks of salt will be built up to the predetermined levels indicated in the contract requirements. It will be the responsibility of the salt supplier to maintain the agreed stock levels at all storage points as per the predetermined schedule. It will be the responsibility of the Duty Superintendent and Duty Officer to make a daily update on salt usage and a weekly return of salt receipts and issues to the Road Operation Manager.

Salt/Sand mixtures

Sand will be kept available to be mixed with salt in accordance with the instructions of the Superintendent for that area and will generally consist of one parts sand to one part salt by weight but this mixture may be varied at the discretion of the Superintendents depending upon road and weather conditions.

5.2 Use of Materials

In general, neat salt will be used on all roads. The use of neat salt or of the salt/sand mixture may be varied at the discretion of the Superintendent depending upon road and weather conditions.

It shall be the responsibility of the Superintendents to ensure that all salt stores are allocated a loading shovel and that the stores are manned continuously during periods of extreme weather or when general Winter Service operations are being carried out.

During the spreading of salt, especially in built-up areas, care must be taken to keep salt clear of trees, hedges, shrubs, lawns etc.

Should hard packed snow and ice occur, a trial will be carried out using Ecothaw de-icer and a comparison made with roads and footways treated with salt.

6. Assistance from Third Parties

6.1 Local Authority Services

Other Local Authority Services may undertake the gritting/salting, and/or snow clearing of footways and/or roads in designated areas, by arrangement agreed prior to the onset of winter.

6.2 Education

Winter Service within the City's educational establishments are dealt with under separate arrangements within the Council

6.3 Parks, Cemetery accesses, Crematoria access, Sheltered Housing accesses, Unadopted Footways through Council Housing Areas and Other Council Property accesses

Priority Roads and Footways in these areas will be treated under contract by other Council Services. Operations will normally be carried out during the standard working day and will be co-ordinated by Operations and Protective Services they will be informed of the prevailing conditions and whether they are required to carry out winter service operations outside normal working hours. A standby rota will be produced to cover weekend operations. A list of priority locations are detailed in Appendix C (g).

7. Road Closures

7.1 Road Closures

The closure of a road under severe winter conditions can only be authorised by the Police but operationally the signs could equally well be put out by the Police or Roads Staff. It is absolutely essential that there is consultation and co-operation between the two bodies in the issue of the signs e.g. for a closure instigated by the Police during the night, the Duty be informed as soon as possible and where the closure initiative came from the Roads Staff that the Police be contacted immediately. Duty Officer will be informed by 08:00 of any road closures and openings. If a road is closed signing should be maintained until the road is reopened. Roads Operations Manager or a duty representative will be required to inform Roadworks Coordination and Communications of any road closures.

8 Road Treatment Logs

A "Road Treatment Log" will be kept by each gritter driver to show the times treatment is necessary. The log will also show the road conditions encountered and the approximate tonnage of the material used. These sheets are to be completed daily by the gritter drivers and returned to the Superintendents each day.

ABERDEEN CITY COUNCIL

OPERATIONAL PLAN APPENDICES

- A: EMERGENCY CONTACTS
- B: DUTIES OF PERSONNEL
- C: GRITTING/TREATMENT
ROUTES
- D: TREATMENT AND STOCK
GUIDANCE

OPERATIONAL PLAN
APPENDIX A - EMERGENCY CONTACTS
APPENDIX A - EMERGENCY CONTACTS

Call Centre Number

03000 200292

FOR WINTER "CALL-OUTS" PLEASE NOTE

24 hours / 7 days

Call Centre Number

03000 200292

OPERATIONAL PLAN
APPENDIX B - PERSONNEL
1 - DUTIES OF PERSONNEL

Duties of the Gritter Drivers

1. Duty Period: Monday - Saturday Start 04.45am
Sunday and Public Holidays Start 06.00am

In addition, when on standby during period of duty, make himself available for call-out by request, during emergency.

Maximum duty period will be 11 hours (10 hours driving unless a declared emergency and driver fit to drive).

2. Location: At Depot detailed by Duty Superintendent
3. Communication Radio

4. Responsible to the Duty Superintendent

5. Responsibilities

- a) To carry out a First Use Vehicle Check.
- b) Drive gritting vehicle along route as detailed on satellite navigation system or to verbal instructions of Duty Superintendent/Night Attendant, ensuring that carriageways are adequately gritted for the conditions prevailing.
- c) Maintain communication with the Duty Superintendent/Night Attendant advising when treatment of a route/area is started and completed.
 - 1) Provide an update of road and footway conditions when requested
 - 2) Advise duty Superintendent/Night Attendant when required to deviate from programmed route.
- d) During actual gritting and snow clearing operations, the amber flashing beacon must be used. Speeds in excess of 20mph (32kph) are prohibited.
- e) In the event of a breakdown of his vehicle or any incident, which prevents him carrying out his allocated duty, he will advise the Duty Superintendent/Night Attendant by radio and await further instructions.
- f) Complete daily winter maintenance treatment log and other such relevant documentation and pass to the Duty Superintendent/Night Attendant by the end of the next working day
- g) To wash down gritter/spinner after use, clean and tidy the cab and top up fuel.

Duties of the Response Drivers

1. Duty period: 04:00 to 15:30 & 15:30 to 03:00
 2. Location: Tullos Depot and work locations detailed by Superintendent
 3. Communication Radio
 4. Responsible to the Duty Superintendent
 5. Responsibilities
 - a) Complete a First Use Vehicle Check before leaving the depot.
 - b) While he may be involved in routine maintenance work, he must be prepared to react immediately to a call-out request which will be initiated by a radio instruction from the Night Attendant/Duty Superintendent.
 - c) On receipt of a call-out he will proceed to location and deal with the condition, maintaining communication with the Night Attendant/Duty Superintendent advising him when the matter has been dealt with.
 - d) Drive gritting vehicle along route as detailed on satellite navigation system or to verbal instructions of Duty Superintendent, ensuring that carriageways are adequately gritted for the conditions prevailing.
 - e) Relay information back to the Night Attendant/Duty Superintendent on any action taken at the locations, the state of the roads and any action taken at any other locations.
 - f) Deal with all requests from the Night Attendant/Duty Superintendent until return to Depot when he will again resume his other allocated duties.
 - 1) Provide an update of road and footway conditions when requested.
 - 2) Advise Duty Superintendent/Night Attendant when required to deviate from programmed route.
 - g) In the event of a general call-out he will operate in the location advised by the Duty Superintendent/Night Attendant.
 - h) In the event of a breakdown of his vehicle or any incident, which prevents him, carrying out this allotted duty, he will advise the Night Attendant/Duty Superintendent by radio and await further instructions.
 - i) Complete daily winter maintenance treatment log and other such relevant documentation and pass to the Duty Superintendent/Night Attendant at the end of the shift.
 - j) To wash down gritter/spinner after use and clean and tidy the cab and top up of fluids also required.
- Duties of the Duty Superintendent/Standby Superintendent

1. Duty Period: Duty Superintendent 04:45 – 15:45
06:00 – 16:00 Sundays + Public Holidays
Standby Superintendent 15:45 – 04:45
15:45 – 06:00 Sundays + Public Holidays

2. Location: West Tullos Depot

3. Communication

The Superintendent will be equipped with a mobile phone and a radio for communication.

4. Responsible to the Roads Operations Manager, Operations, Roads.

5. Responsibilities

Overall responsibility for the day to day operations of the Winter Service function.

- a) On receipt of Winter Maintenance Advice Sheet, initiate appropriate action, utilising Night Attendant as necessary, including advising drivers on spread rates to be applied.
- b) Ensure that gritters, lorries, plant and ancillary equipment are maintained in operational condition and located at the appropriate Depots and that adequate supplies of salt and sand are available.
- c) Ensure that drivers and operators are conversant with operational details.
- d) In the event of severe conditions, which exhaust the capacity of his resources, advise the Road Operations Manager of the short fall in resources.
- e) To react to outside agency's requests and advise them, as necessary, when adverse conditions require their action and render support in plant and labour resources as necessary. Discuss with Roads Operations Manager or Duty Officer where this compromises treatment in the road network.
- f) In the event of the breakdown of a vehicle, report defect to the appropriate workshop.
- g) Complete a daily log of vehicles and plant breakdowns.
- h) To ensure all call-out requests are logged in Log Book indicating time received, time accident dealt with and by which vehicle.
- i) Ensure that drivers logs are maintained, and to ensure that the treatment and spread rates comply with his instruction on a daily or weekly basis.

- j) To advise the Road Operations Manager or the Duty Officer each day not later than 07:00 on the road conditions prevailing and the action taken and to compile a morning stat report each day no later than 07:00 (08:00 on Sundays and public holidays).
- k) If continuing action maintain and complete Continuing Action Form
- l) During all operations the Superintendent must keep either the Night Attendant or the Duty Officer advised when action is taken on each route/area and also when action ceases. Total resources deployed on each route/area must also be communicated. It is vital that this information is accurate and given timeously in order that the Council's website reflects exactly the action being undertaken on the ground.

Duties of the Duty Officer

1. Duty Period: 1 week commencing with issue of midday forecast on Monday morning to completion of morning treatment the following Monday midday

2. Location: Duty Officer's Office or Residence as necessary.

3. Communication

The Duty Officer will be equipped with a mobile phone and radio for communication.

4. Responsible to the Road Operations Manager, CHI

5. Responsibilities

Responsibility for interpreting the daily forecast to produce the daily Winter Maintenance Advice Sheet and ensuring that relevant parties are informed of the proposed action.

- a) On receipt of weather forecast, and telephone contact with Met Office if necessary, decide on appropriate winter treatment and spread rates for the coming afternoon, night shift and following morning. Check updated forecast at 18:00 and amend action plan as necessary with stand by superintendent.
- b) Complete Winter Maintenance Advice Sheet and issue to Duty Superintendent. Duty Superintendent to be contacted by telephone/radio if not available in West Tullos Depot.
- c) Issue Winter Maintenance Advice Sheet to night attendant.
- d) As necessary issue Winter Maintenance Advice Sheet to appropriate parties.
- e) Update Weather Conditions on Council Website on a daily basis.
- f) Update Council Website at the start of each treatment and on completion of each treatment.
- g) Complete the Winter Maintenance Advice Sheet after the following morning's treatment, detailing any change from the proposed action and recording actual temperatures and conditions from the previous 24 hours.
- h) Advise Roads Operations Manager of salt tonnage used on a daily basis.
- i) Consult Roads Operations Manager concerning current salt stock levels and the impact this may have on limiting proposed winter action.

Duties of the Night Attendant

1. Duty period: 8:30 pm to 8.00am
2. Location: West Tullos Depot
3. Communication Telephone and radio
4. Responsible to Duty Superintendent/Stand-by Superintendent/Superintendent
5. Responsibilities
 - a) To accept by telephone, all call-out requests from Police Scotland
 - b) To log all calls in Log Book indicating time received, time incident dealt with and by which vehicle.
 - c) To dispatch drivers, who are in attendance to the requested locations.
 - d) In the event of demand significantly exceeding capability, telephone Stand-by/Duty Superintendent who will assume control and instruct as necessary.
 - e) In the event of a report that a vehicle is out of commission,
 - 1) he will use alternative standby vehicle or driver if available
 - 2) if not available, advise Stand-by/Duty Superintendent who will assume responsibility.
 - f) Ensure that he receives information and immediately updates the Council's website to reflect the current position on the ground
 - g) Monitor weather forecast and graphs and recording actions taken
 - h) From 06:30 compile morning status report by 07:00 and distribute to Roads Operations Manager, Duty Superintendent and Duty Officer.

Duties of the Road Operations Manager

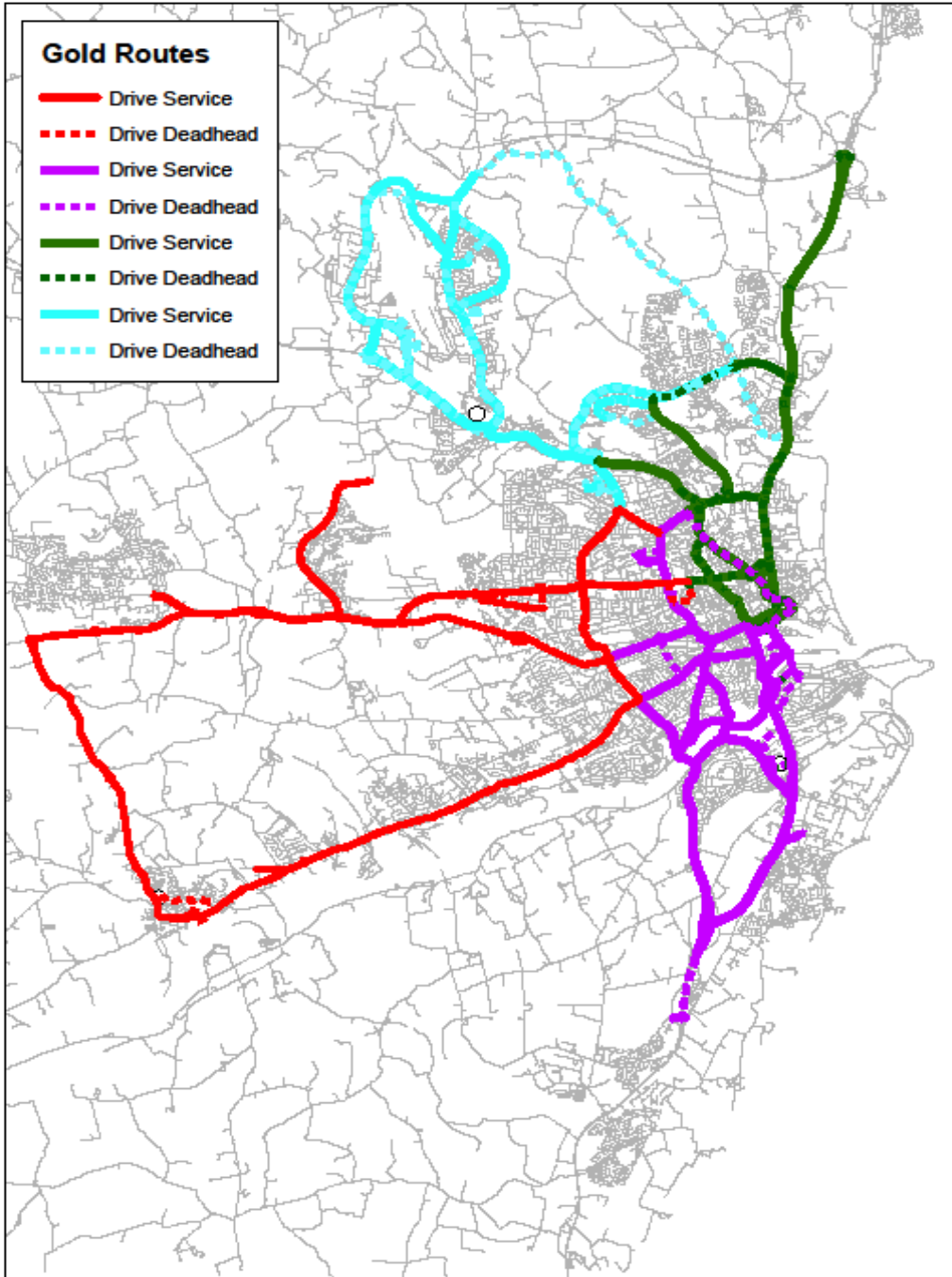
1. Duty period: Flexible.
2. Location: Office/Residence.
3. Communication: Telephone and radio
4. Responsible to Roads Infrastructure Manager, Operations, Roads.
5. Responsibilities
 - a) Wholly responsible for ensuring that the Superintendents and Operatives are conversant with Winter Maintenance Operations and shall provide the Superintendents with the physical resources to enable them to carry out the objectives and meet the standard set.
 - b) Shall have the authority to utilise all the resources of his area, however, deployed on normal works, in the event of extreme conditions.
 - c) During working hours, responsible for ensuring the Superintendents are advised of weather forecasts.
 - d) Ensuring that stocks of sand and salt are maintained at a sufficient level during the operation period.
 - e) Responsible for checking that all Winter Service equipment is overhauled and on station by the end of September each year and reporting omissions, if any.
 - f) Responsible for preparing a duty rota for Superintendent and Operatives to ensure that adequate supervision for day to day operations is provided.
 - g) Ensure compliance with the Specification Document.

**OPERATIONAL PLAN
APPENDIX C - GRITTING ROUTES**

(a) Priority 1 Gold Routes

The following routes (1-4) are to be treated 24 hours 7 days during the winter, these routes include sections of former trunk road detrunked in April 2019.

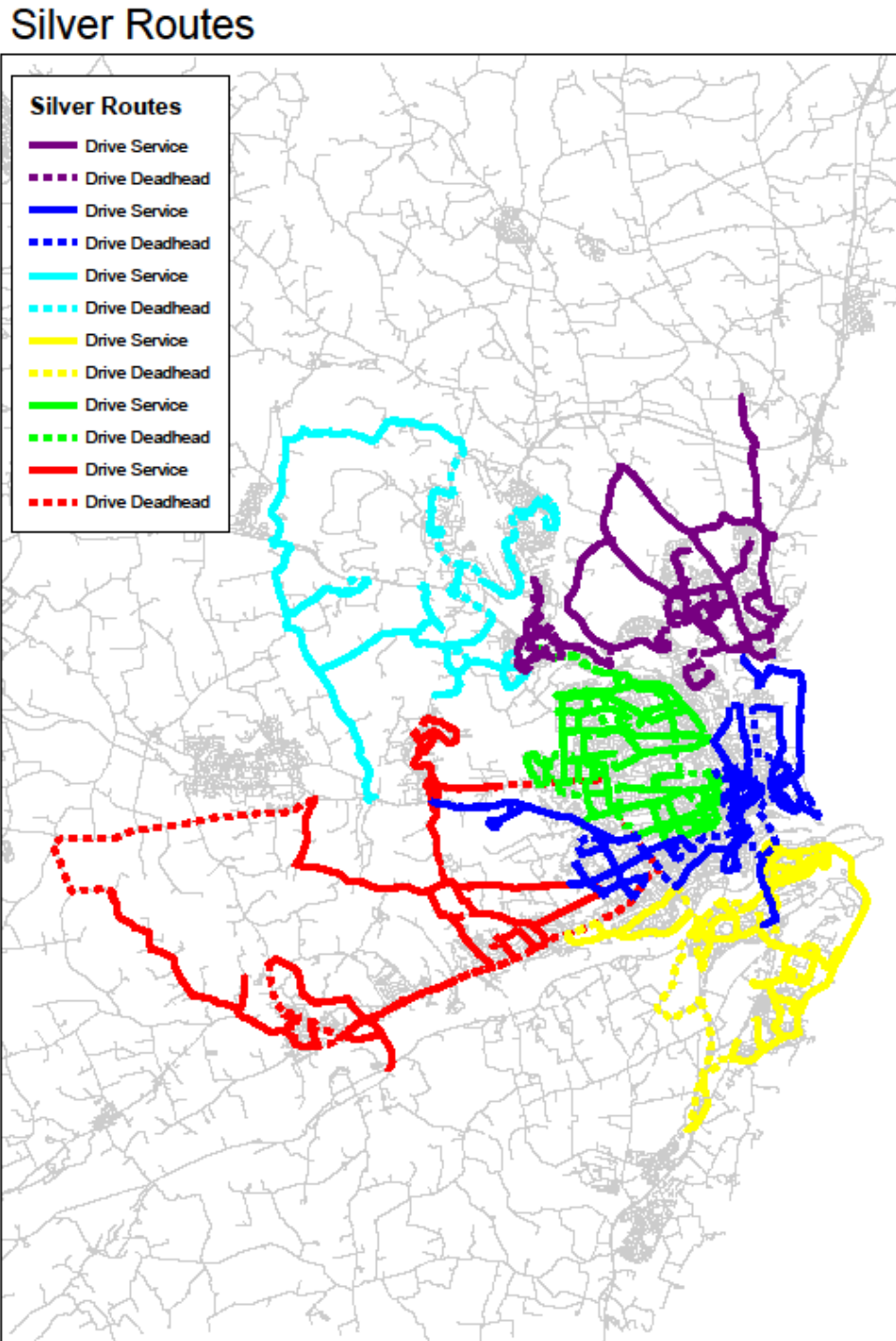
Gold Routes



Detailed Gold Route Plans are included below and in Appendix 3

(b) **Priority 1, Silver routes**

The following described routes (numbered 1-6) cover all Priority 1, Silver routes within the City and are to be treated between 04.45 and 21.00.



Detailed Silver Route Plans are included below and in Appendix 4.

(c) **TRACTOR ROUTE**

In order to cover car parks, steep hills and other specific locations/pedestrian areas, the following route will be operated by tractor from Tullos Depot.

Farquhar Road / Farquhar Avenue
 Abbey Road / Baxter Street/ Mansfield Road / Glenbervie Road
 St Nicholas Street / Correction Wynd / St Nicholas Lane
 Summer Street Car Park
 Jack's Brae
 Summer Street from Skene Road to Skene Terrace
 Gallowgate Car Park
 Kittybrewster Car Park
 AECC (Park and Ride)
 Castlegate / Market Stance
 Virginia Street / Mearns Street Car Park

(d) **SNOW CLEARANCE AREAS**

After priority routes have been cleared, when lying snow persists this will be tackled on an area basis in accordance with the following areas.

- | | | |
|----|---------------------|--|
| 1. | BUCKSBURN | West of Auchmill Rd Dual Carriageway Section
South of Bankhead Road Railway Bridge and Greenburn Drive |
| 2. | DYCE | North of Bankhead Road Railway Bridge and Greenburn Drive |
| 3. | BRIDGE OF DON | North of Bridge of Don, and North of Brig o' Balgownie |
| 4. | KINGSWELLS | |
| | | <u>AREAS BOUNDED BY</u> |
| 5. | NORTHFIELD | NORTH Heathryfold Housing Scheme
SOUTH Provost Fraser Drive
EAST North Anderson Drive
WEST Howes Road |
| 6. | WOODSIDE | NORTH River Don
SOUTH Rosehill Drive / Back Hilton Road
EAST Great Northern Road / Powis Terrace
WEST North Anderson Drive |
| 7. | SEATON / TILLYDRONE | NORTH River Don
SOUTH St Machar Drive - School Road
EAST Beach Esplanade
WEST Donbank Terrace, Don Street / Great Northern Road |
| 8. | MASTRICK | NORTH Provost Fraser Drive
SOUTH Lang Stracht
EAST North Anderson Drive
WEST Sheddocksley Housing Scheme |
| 9. | CORNHILL / CAIRNCRY | NORTH Rosehill Drive / Back Hilton Road
SOUTH Westburn Road / Hutcheon Street
EAST George Street / Powis Terrace |

10.	OLD ABERDEEN	WEST	North Anderson Drive
		NORTH	St Machar Drive / School Road
		SOUTH	Hutcheon Street / Nelson Street / Urquhart Road
		EAST	Beach Esplanade
		WEST	Powis Terrace/George Street
11.	ST. CLEMENTS	NORTH	Nelson Street / Urquhart Road / Hutcheon Street
		SOUTH	Regent Quay / Waterloo Quay
		EAST	Beach Esplanade
		WEST	Mount Street / South Mount Street / Rosemount Viaduct / Schoolhill / St Lang Stracht
12.	WOODEND / SUMMERHILL	NORTH	Skene Road/Queen's Road
		SOUTH	Anderson Drive
		EAST	A944 Lang Stracht
		WEST	Westburn Road
13.	MIDSTOCKET / KINS GATE	NORTH	Queen's Road / Carden Place / Skene Street
		SOUTH	Mount Street / South Mount Street
		EAST	Anderson Drive
		WEST	Skene Street/Schoolhill
14.	CENTRAL AREA	NORTH	Willowbank Road / Springbank Terrace/Guild Street
		SOUTH	St Nicholas Street/Market Street
		EAST	Rose Street/Holburn Street
		WEST	Skene Road / Queen's Road
15.	HAZLEHEAD / BRAESIDE	NORTH	North Deeside Road / Great Western Road
		SOUTH	Anderson Drive
		EAST	Woodlands / Craigton Road
		WEST	Queen's Road / Carden Place
16.	HOLBURN / BROOMHILL	NORTH	Holburn Street
		SOUTH	Rose Street
		EAST	South Anderson Drive
		WEST	Willowbank Road / Springbank Terrace / Guild Street
17.	FERRYHILL	NORTH	Riverside Drive / North Esplanade West
		SOUTH	Market Street
		EAST	Holburn Street
		WEST	South Esplanade West / East / Greyhope Road
18.	TORRY	NORTH	Tullos Industrial Estate
		SOUTH	Greyhope Road / Coast Road
		EAST	

		WEST	Wellington Road
19.	MANNOFIELD / GARTHDEE	NORTH	North Deeside Road/Great Western Road
		SOUTH	Garthdee Road
		EAST	South Anderson Drive
		WEST	Pitfodels Station Road
20.	KINCORTH	NORTH	South Deeside Road / Great Southern Road
		SOUTH	Wellington Road (Charleston)
		EAST	Wellington Road
		WEST	City Boundary
21.	COVE	NORTH	Tullos Industrial Estate
		SOUTH	City Boundary
		EAST	Sea
		WEST	Wellington Road
22.	CULTS/BIELDSIDE	NORTH	Countesswells Road
		SOUTH	River Dee
		EAST	Craigton Road / Pitfodels Station Road
		WEST	Hillhead Road
23.	MILLTIMBER	NORTH	A944
		SOUTH	River Dee
		EAST	Hillhead Road
		WEST	Contlaw Road
24.	CULTER	NORTH	City Boundary
		SOUTH	River Dee
		EAST	Contlaw Road
		WEST	Anguston Road

(e) **FOOTWAY ROUTES**

Location of Plant and Resources (Footways)

<u>Area</u>		<u>Plant</u>	<u>Depot</u>
1.	Bucksburn	1 Kubota	Bucksburn
2.	Dyce	Shared area 1	
3.	Bridge of Don	3 Kubota	Bucksburn
4.	Kingswells	1 Kubota	Bucksburn
5.	Northfield	2 Kubota	Mastrick
6.	Woodside	Shared area 13	
7.	Seaton / Tillydrone	1 Kubota	Bucksburn
8.	Mastrick	2 Kubota	Mastrick
9.	Cornhill / Cairncry	1 Kubota	Tullos
10.	Old Aberdeen	Shared Area 7	
11	St Clements	Shared Area 14	
12	Woodend / Summerhill	1 Kubota	Tullos
13	Midstocket / Kings Gate	1 Kubota	Tullos
14	Central Area	2 Kubota	Tullos
15	Hazelhead / Braeside	Shared area 19	
16	Holburn / Broomhill	Shared Area 14	
17	Ferryhill	Shared Area 20	
18	Torry	Shared Area 21	
19	Mannofield / Garthdee	1 Kubota	Tullos
20	Kincorth	1 Kubota	Tullos
21	Cove	1 Kubota	Tullos
22	Cults / Bielside	1 Kubota	Culter
23	Milltimber	1 Kubota	Culter
24	Culter	1 Kubota	Culter

Priorities in Treatment

When working in above locations, priority to be given to those areas, as part of an area response steep gradients, and to City Centre Routes 1 and 2, in particular.

The footways within Areas 1 to 24 will be treated on an area by area basis. However, within each specific area, the footways indicated in the following footway sections will be given priority within that area.

CITY CENTRE FOOTWAY PRIORITY 1 GRITTING ROUTE 1

Commence Bridge of Dee Roundabout at Holburn Street
Holburn Street East F/P to Riverside Terrace
Drive to Holburn Street at Fonthill Road
Holburn Street East F/P to Union Street
Union Street South F/P to Bridge Street
Bridge Street West F/P to Guild Street
Bridge Street East F/P to Union Street
Union Street South F/P to Market Street
Market Street West F/P to North Esplanade West
Market Street East F/P to Union Street
Union Street South F/P to Castle Street
Castle Street South F/P to King Street
King Street East F/P to Nelson Street
King Street West F/P to Castle Street
Castle Street North F/P to Broad Street
Broad Street East F/P to Schoolhill
Schoolhill North F/P to Rosemount Viaduct
Rosemount Viaduct North F/P to South Mount Street
South Mount Street East F/P to Rosemount Place
Rosemount Place North F/P to Argyll Place
Rosemount Place South F/P to South Mount Street
South Mount Street West F/P to Rosemount Viaduct
Rosemount Viaduct South F/P to Union Terrace
Union Terrace West F/P to Union Street
Union Terrace East F/P to Schoolhill
Schoolhill South F/P to Broad Street
Broad Street West F/P to Union Street
Union Street North F/P to Holburn Street
Holburn Street West F/P to Union Grove
Union Grove North F/P to Forest Avenue
Union Grove South F/P to Holburn Street
Holburn Street West F/P to Nellfield Place
Drive to Holburn Street/Riverside Terrace
Holburn Street West F/P to Bridge of Dee Roundabout

CITY CENTRE FOOTWAY PRIORITY 1 GRITTING ROUTE 2

Drive Rose Street
Rose Street West F/P to Thistle Street
Thistle Street South F/P to Albert Street
Thistle Street North F/P to Rose Street
Rose Street West F/P to Esslemont Avenue
Esslemont Avenue West F/P to Rosemount Place
Esslemont Avenue East F/P to Rose Street
Rose Street East F/P to Union Street
Drive to Chapel Street/Union Street Junction
Chapel Street West F/P to Huntly Street
Huntly Street South F/P to Rose Street
Drive to Huntly Street/Chapel Street Junction
Chapel Street East F/P to Union Street
Drive to Union Street/Bon Accord Street Junction
Bon Accord Street West F/P to Fonthill Road
Bon Accord East F/P to Union Street
Drive to Union Street/Crown Street Junction
Crown Street West F/P to Ferryhill Road
Ferryhill Road North F/P to Bon Accord Street
Ferryhill Road South F/P to Crown Street
Crown Street East F/P to Union Street
Drive to Windmill Brae North F/P to Bath Street
Windmill Brae South F/P to Crown Street
Drive to Bridge Street/Link Brae Junction
Link Brae South F/P
Drive to Guild Street/Bridge Street Junction
Guild Street North F/P to Market Street
Trinity Quay North F/P to Marischal Street
Drive to West North Street Littlejohn Street Junction
Littlejohn Street South F/P
Drive to Gallowgate Upper Kirkgate Junction
Gallowgate West F/P to Berry Street
Berry Street South F/P to Loch Street
Loch Street South F/P to George Street
George Street West F/P to John Street
John Street South F/P to North St Andrew Street
John Street North F/P to George Street
George Street West F/P to Hutcheon Street
George Street East F/P to Loch Street
Loch Street North F/P to Berry Street
Berry Street North F/P to Gallowgate
Gallowgate East F/P to Littlejohn Street
Littlejohn Street North F/P

AREA	PRIORITY FOOTWAYS
1. BUCKSBURN	Kepplehills Road Sclattie Park Sclattie Circle Hopetoun Grange Howes View Bankhead Road Oldmeldrum Road
2. DYCE	Victoria Street (Riverview Dr to Gladstone Pl.) Dyce Shopping Centre
3. BRIDGE OF DON	Newburgh Road Jesmond Drive (Middleton Rd to Whitestripes Way) Braehead Way Bodachra Road Harehill Road Cairnfold Road Danestone Terrace Scotstown Gardens Ellon Road (Bridge of Don to Broadfold Road)
5. NORTHFIELD	Lintmill Terrace Quarry Road (at shops) Byron Avenue (at shops) Moir Green (at shops)
7. SEATON / TILLYDRONE	King Street (School Road to High Flats) School Road Tillydrone Avenue Tillydrone Terrace Wingate Road Dempsey Terrace Conningham Gardens
8. MASTRICK	Greenfern Road (at shops)
9. CORNHILL / CAIRNCRY	Cornhill Road (Ashgrove Rd to Westburn Rd) Berryden Road Rosehill Drive (at shops)
11. ST. CLEMENTS	Boulevard (Roundabout to Railway Bridge)
12. WOODEND / SUMMERHILL	Eday Drive Eday Road (Eday Dr to Stronsay Dr)

	Summerhill Shopping Centre
15. HAZLEHEAD / BRAESIDE	Countesswells Road (at shops) Springfield Road (Countesswells to Airyhall) Great Western Road (Morningside Rd to South Anderson Drive)
17. FERRYHILL	South Crown Street Albury Place
18. TORRY	Menzies Road (at shops corner of Grampian Place and Victoria Rd end) Grampian Place (Menzies Rd to Walker Rd) Victoria Road (Menzies Rd to Mansfield Rd) Mansfield Road Glenbervie Road Abbey Place Rockall Road Ladywell Place Brimmond Place Battock Place Oscar Place
19. MANNOFIELD / GARTHDEE	Morrison Drive Ivanhoe Walk Talisman Walk Deeside Gardens Deeside Drive Deeside Crescent
22. CULTS / BIELDSIDE	Abbotshall Road Kirk Brae North Deeside Road (South Avenue to Cults Hotel) Cults Avenue Hillview Crescent Quarry Road Cairn Road Baillieswells Road North Deeside Road (at Bielside Shops)
23. MILLTIMBER	Contlaw Brae Monearn Gardens

24. CULTER

Malcolm Road
North Deeside Road (Malcolm Rd to Cairn Rd)
School Road
Towerview Road
Coronation Road
Cairn Road

(f) **STEPS/RAMPS FOR SPECIAL ATTENTION**

Priority One

Commerce Street to Castlehill	Steps/Ramp
Crown Terrace to Bridge Street	Steps
Green to Union Street	Steps
Mounthooly	Steps
Skene Terrace to North Silver Street	Steps
Virginia Street to Castle Terrace	Steps
Virginia Street to Marischal Street	Steps
Union Street - Correction Wynd	Steps

Priority Two

Auchmill Road	Steps
Bankhead Road to A947	Steps/Ramp
Beach Boulevard to Castlehill Terrace	Steps
Beach Boulevard to Hanover Street	Steps
Belmont Street – Denburn Road (Patagonian Court)	Steps
Gilbert Road Underpass (both sides)	Ramps
Great Northern Road to Deer Road	Steps / Ramps
Greenburn Underpass (both sides)	Steps/Ramps
Ivanhoe Walk	Steps
Kepplehills Road	Steps at Shops
Mansfield Road	Steps
Morningside Road to Deeside Gardens	Steps
St Johns Road to A947	Steps/Ramp
Sclattie Park	3 Sets Steps
Talisman Walk	Steps

(g) **CYCLEWAYS**

The Westhill path (from City boundary to Hazlehead Roundabout)

The Shell path

Cycle paths along Stoneywood Road (section of National Cycle Network)

Cove Road to Duthie Park where cycleway is part of a shared footpath

Wellheads Drive cycle path where cycleway is part of a shared footpath

Cycle paths along Wellington Road where cycleway is part of a shared footpath

(h) **PARKS, CEMETERY ACCESSES, CREMATORIA ACCESS, SHELTERED HOUSING ACCESSES, UNADOPTED FOOTWAYS THROUGH COUNCIL HOUSING AREAS AND ACCESS TO OTHER COUNCIL PROPERTY**

The following are lists from the above categories which should be given priority treatment.

1. Accesses to all sheltered housing complexes:

Multi Storey Sheltered:		
Area 5 & 8	Area 6,7 & 9	Area 16, 18 & 20
Granitehill House Regensburg Court Smithfield Court	Ashgrove Court/Gillespie Castleton Court Clifton Court Donview House Fullerton Court Hilton Court Lord Hays Court Meadow Court Murray Court Seaton House Seaview House St Clements Court Stewart Park Court Woodhill Court	Balmoral Court Brimmond Court Gairn Court

Low Rise Sheltered Complexes:

Area 5 & 8	Area 6,7,9 & 11	Area 16, 18, 19 & 20
Berrymoss Court Charlie Devine Court Clashieknowe Denmore Court/V.S. Fairley Den Gray Court Hamewith Kingswood Court Lewis Court Merrivale Parkhill Court Quarryhill Court Taransay Court	Aberdon Court Bede House Court Constitution Court Dominies Court Loch Court Short Loanings South Constitution Street Stocket Grange	Balnagask Cottages(1) Balnagask Cottages(2) Craigton Park Denseat Court Janesfield Manor Margaret Clyne Court Mark Bush Court Provost Hogg Court Rorie Court Thorngrove Court

2. Accesses to following Social Work Properties

Area 5 & 8	Area 6,7 & 9	Area 15, 18, & 20
Quarry Centre, Cumming's Park Crescent		Kincorth Social Work Office, Fauld's Row
Mastrick Social Work Office, Greenfern Road	Rosehill Centre, 202 Ashgrove Road West	Pitfodels House, North Deeside Road, Cults
Williamson Family Centre, Mastrick Close	Croft House, Oldcroft Place	Craigton Road Day Centre, Craigielea Gardens
Community Special Needs Group, 2 Croft Road	Aberdon House, Coningham Road, Tillydrone	Deeside Family Centre, Girdleness Road
Burnside Day Centre, Mastrick Drive		

3. Accesses to the following Cemeteries and Crematoria:

Area 2 & 6		Area 12,18,19,& 24
Dyce Grove Cemetery		Hazlehead Crematorium Culter Church Cemetery Springbank Cemetery Nigg Church Cemetery Hazlehead Cemetery

4. Accesses to the following Shopping Centres

Area 5 & 8	Area 7 & 9	Area 20
Byron Square	Hayton Road	Provost Watt Drive
Greenfern	Tillydrone	Kincorth
Cummingspark	Foresterhill Road, Cornhill	

5. Accesses to restaurants, where open, toilets, steps and ramps within the City Council's parks and garden

	Area 13	Area 17
	Westburn Park	Duthie Park (From Polmuir Road Entrance)

With the exception of the specific locations detailed above, all other areas in the above categories will receive priority 2 treatment.

The following Multi Storey Blocks are part of the list which will receive priority 2 treatment:

MULTI-STOREY BLOCKS		
Area 8	Area 7,9,10 & 11	Area 15 & 20
Mastrick Land	Aulton Court Balgownie Court Bayview Court Beachview Court Beechwood Court Cairncry Court Cornhill Court Denburn Court Donside Court Elphinstone Court Gilcomstoun Land Grandholm Court Greig Court Hutcheon Court Inverdon Court Kings Court Linksfield Court Marischal Court Northsea Court Oldcroft Court Porthill Court Promenade Court Regent Court Rosehill Court Seamount Court St Machar Court St Ninian Court Stockethill Court Thistle Court Tillydrone Court Virginia Court	Bruce House Davidson House Grampian Court Kincorth Land Morven Court Rose House Wallace House

**OPERATIONAL PLAN
APPENDIX D – STOCK AND TREATMENT GUIDANCE**

(a) Community Grit/Salt Bins.

Small quantities of salt (for use on the public roads and footpaths) are available free of charge to members of the public, subject to them supplying a suitable container and shovel, from the community grit bins sited at the following location.

COMMUNITY	ADDRESS OF COMMUNITY BIN LOCATION	DETAILED LOCATION
Bridge of Don	Park and Ride	In south car park.
City Centre - Crown Terrace	Near St John's Place, junction.	Next to recycling point.
City Centre - Justice Street	Near Recycling Point	Next to recycling point.
City Centre - Kidd Street	Union Row, Aberdeen, AB10 1SA	Opposite Investment house.
Countesswells Road	Near number 210	Setted surface near number 210
Cove	Loirston Close	Public House car park
Craibstone	Park and Ride	At entrance to south carpark
Danestone	Laurel Drive, AB22 8HB	Tesco car park – next to recycling facilities
Dyce	Netherview Avenue Dyce, Aberdeen, AB217NG	Asda car park – Next to recycling facilities
Garthdee	Garthdee Road, Aberdeen, AB107QA	Asda car park – Next to recycling facilities
Kingswells	Park and Ride	Next to recycling point and bins
Mastrick	Fernhill Drive, AB16 6QT	Near junction with ernhill Road
Northfield	Byron Square, Aberdeen, AB16 7LL	Byron Square next to bins in carpark
Peterculter	Johnston Gardens North. Peterculter, AB14 0LD	At turning area near number 129
Regent Walk	Near Regent Court	Regent court carpark, near entrance
Rosemount	65 Leadsid road, Aberdeen, AB25 1RX	Outside 65 Leadsid road next to bins
Seaton Drive	Near King Street Junction	Carpark on entry to Seaton Walk
Tillydrone	Pennan Road, Aberdeen, AB24 2UD	Opposite family centre / library
Torry	Girdleness Road	Layby opposite 223 Girdleness Road
Woodside	Anderson Road, Aberdeen, AB24 4NS	At the top of Anderson Road, next to Stewart Park

(b) – Decision Making Treatment Matrix – Precautionary Treatments

WINTER TREATMENT SPREAD RATE MATRIX SCOTS WINTER SERVICE SUBGROUP ADVICE

Salt Type	Precautionary Treatment for frost / ice	Variation of Well Maintained Highways Appendix H - September 2013					
		Column C	Column D	Column G	Column H	Column K	Column L
		Poor Cover medium Traffic Normal Loss	Poor Cover medium Traffic High Loss	Fair Cover medium Traffic Normal Loss	Fair Cover medium Traffic High Loss	Good Cover medium Traffic Normal Loss	Good Cover medium Traffic High Loss
Dry Salt	RST at or above -2 Degrees and damp road conditions <i>Table H9 of Code - where the road surface is dry no action is needed even when conditions are below zero</i>	10(8)	10(8)	10(8)	10(8)	10(8)	10(8)
Pre-wet Salt		10(8)	10(8)	10(8)	10(8)	10(8)	10(8)
Treated Salt		10(7)	10(7)	10(7)	10(7)	10(7)	10(7)
Dry Salt	RST at or above -2 Degrees and wet road conditions	15(13)	20(16)	10 or 15(11)	15(13)	10(8)	10
Pre-wet Salt		15(12)	15(14)	10(10)	15(12)	10(8)	10(9)
Treated Salt		10(10)	10 or 15(11)	10(8)	10(10)	10(7)	10(7)
Dry Salt	RST below -2 deg C and above -5 deg C and damp road conditions	15 or 20(17)	20	10 or 15(14)	20(17)	10 or 15(11)	15(13)
Pre-wet Salt		15 or 20(16)	20(18)	15(14)	15(16)	15(11)	15(12)
Treated Salt		15(12)	15(14)	10 or 15 (11)	15(12)	10(8)	10(10)
Dry Salt	RST below -2 deg C and above -5 deg C and wet road conditions	1 x 20 then monitor & treat as required(2x17)	1 x 20 then monitor & treat as requ'ed(2x20)	1 x 20 then monitor & treat as requ'ed(2x28)	1 x 20 then monitor&treatas requ'ed(2x17)	20(20)	1 x 20 then monitor & treat as required(25)

Pre-wet Salt		1 x 20 then monitor & treat as required(2x16)	1 x 20 then monitor & treat as requ'ed(2x18)	1 x 20 then monitor & treat as requ'ed (27)	1 x 20 then monitor & treat as requ'ed(31)	1 x 20 then monitor & treat as requ'ed(21)	1 x 20 then monitor & treat as required(24)
Treated Salt		1 x 20 then monitor & treat as required(24)	1 x 20 then monitor & treat as requ'ed(28)	1 x 20 then monitor & treat as requ'ed (21)	1 x 20 then monitor & treat as requ'ed(24)	1 x 20 then monitor & treat as requ'ed(16)	1 x 20 then monitor & treat as required(19)
Dry Salt	RST at or below -5 deg C and above -10 deg C and damp road conditions	1 x 20 then monitor & treat as required(2x16)	1 x 20 then monitor & treat as requ'ed(2x19)	1 x 20 then monitor & treat as requ'ed(27)	1 x 20 then monitor&treatas requ'ed(2x16)	20	1 x 20 then monitor & treat as required(24)
Pre-wet Salt		1 x 20 then monitor & treat as required(2x16)	1 x 20 then monitor & treat as requ'ed(2x18)	1 x 20 then monitor & treat as requ'ed(27)	1 x 20 then monitor & treat as requ'ed(31)	1 x 20 then monitor & treat as requ'ed(21)	1 x 20 then monitor & treat as required(24)
Treated Salt		1 x 20 then monitor & treat as required(23)	1 x 20 then monitor & treat as requ'ed(27)	1 x 20 then monitor & treat as requ'ed (20)	1 x 20 then monitor & treat as requ'ed(23)	1 x 20 then monitor & treat as requ'ed(15)	1 x 20 then monitor & treat as required(18)
Dry Salt	RST below -5 deg C and above -10 deg C and wet road conditions	1 x 20 then monitor & treat as required(32)	1 x 20 then monitor & treat as requ'ed(2x39)	1 x 20 then monitor & treat as requ'ed(2x27)	1 x 20 then monitor&treatas requ'ed(2x32)	1 x 20 then monitor & treat as requ'ed(2x20)	1 x 20 then monitor & treat as required(2x24)
Pre-wet Salt		1 x 20* then monitor & treat as required(2x31)	1 x 20 then monitor & treat as requ'ed(2x36)	1 x 20 then monitor & treat as requ'ed2x(27)	1 x 20 then monitor & treat as requ'ed(2x31)	1 x 20 then monitor & treat as requ'ed(2x21)	1 x 20 then monitor & treat as requ'ed(2x24)
Treated Salt		1 x 20 then monitor & treat as req're'd(2x23)	1 x 20 then monitor & treat as requ'ed(2x27)	1 x 20 then monitor & treat as requ'ed(2x20)	1 x 20 then monitor & treat as requ'ed(2x23)	1 x 20 then monitor & treat as requ'ed(30)	1 x 20 then monitor & treat as required(2x18)

Key:

() = Appendix H recommendations

- a. The treatment matrix assumes no residual de-icing material on the carriageway. The presence of residual de-icing material will be taken into account and spread rates adjusted in preparing proposed action plans. Evidence of residual salt should be based on IPS sensor/camera feedback or visual inspection.
- b. Particular attention should be given to possibility of water running across carriageways and other surfaces e.g., off adjacent fields after heavy rains, washing off previously deposited salt. Such locations should be closely monitored and may require further treatments
- c. If rain is forecast to fall on frozen surfaces then treatment should take place on the dry roads prior to the commencement of the rain and again during the rainfall until

temperatures are above 0°C, subject to being completed within the council's hours of cover.

- d. Salt is less effective when road temperatures are below -5°C. However salt and grit may be used on sheet ice or hard-packed snow when temperatures are exceptionally low. Where hard packed snow and ice have formed and cannot be removed by ploughing, a salt sand mix can be used in successive treatments at a spread rate of 20 – 40 g/sqm. This aids vehicle traction and acts to break up the snow and ice.

(c) Precautionary Treatment Matrix for Snow Conditions

Salt Type	Precautionary Treatments Before Snow or Freezing rain	Light or Medium Traffic	Heavy Traffic
Dry Salt	Light Snow Forecast <10mm	20g/m ²	20g/m ²
Pre-wet Salt		20g/m ²	20g/m ²
Treated Salt		15g/m ²	15g/m ²
Dry Salt	Moderate/Heavy Snow Forecast >10mm	20g/m ²	40g/m ²
Pre-wet Salt		20g/m ²	40g/m ²
Treated Salt		15g/m ²	30g/m ²
Dry Salt	Freezing rain Forecast	1 x20g/m ² then monitor	
Pre-wet Salt		1 x20g/m ² then monitor	
Treated Salt		1 x15g/m ² then monitor	

(d) Reactive Treatment Matrix for Ice and Compacted Snow Conditions

Non – Precautionary/Reactive Treatments of Snow/Ice		
During snowfall	Salt - 20g/m ²	
Thin layers of Ice < 1mm RST above -5C	Salt - 20g/m ²	
Thin layers of Ice < 1mm RST below -5C	Salt - 20g/m ²	Consider using Mixtures – 20-40g of Sand/Salt
Thin layers of compacted snow/ice up to 5mm thickness.	Mixtures – 20-40g of sand/salt	
Layer of compacted snow/ice greater than 5mm thickness.	Mixtures – 20-40g of sand/salt	Consider using sand only.

(e) Appropriate Salt and Grit Stock Levels

Salt stocks

Winter Period

1st October to 30th March

Core Winter Period

1st November to 1 March

Days Resilience (Overall Winter Period)

9 days

Days resilience (Core Winter Period)

15 days

Depot Tonnage	Non-Winter stock		Non-Core Winter Period		Core Winter Period	
	Min	Max	Min	Max	Min	Max
Bucksburn	2000	4000	3000	10000	3500	10000
Tullos	0	250	400	1000	500	1000
Culter	0	100	250	500	250	750
Total	2000	4350	3650	11500	4250	11750

Application of resilience measures to be considered at the following stock levels.

All depots	Non-Winter stock	Non-Core Winter Period	Core Winter Period
Tonnes	N/A	2690	4485

The service is to have access to 200 tonnes of grit during the core winter period.

Mutual aid in salt supply and other aspects of winter service and contingency arrangements in advance, are in place through the Salt Cell Group. The 32 Scottish Councils are represented on this group through SCOTS, SOLACE and COSLA. Salt Cell is monitoring salt restock for winter 2019/20.