

HIGHWAY MAINTENANCE WINTER SERVICE OPERATIONAL PLAN

2025 - 2026

A Guide to Highway Policies and
Procedures



City of
BRADFORD
METROPOLITAN DISTRICT COUNCIL

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Table of Contents

INTRODUCTION	V
1 WINTER RISK PERIOD	1
History of Gritting (2017-Present)	1
The Law	2
2 ROUTE PLANNING FOR CARRIAGEWAYS AND FOOTWAY	3
Carriageway Routes for Pre-Treatment	3
Requests for amendments of gritting routes during the winter service period	5
Response and Treatment Times for Carriageway Treatments	6
Response Treatment Times for Footway Routes	6
Allocation of Plant, Vehicles, Equipment and Materials to Routes	6
Allocation of Plant, Vehicles, Equipment and Materials During Periods of Severe Weather	7
Location and Maintenance of Grit Bins	7
Applications for new grit bin locations	8
Community grit bin scheme	8
3 WEATHER PREDICTION AND INFORMATION	9
Road Weather Information Bureau Services	9
Road Weather Stations	9
The Decision-Making Process	9
Forecast Information	9
Changes to the weather forecast	10
Night and Ice Patrol Function	10
Timing and Circulation of Information	10
4 ORGANISATIONAL ARRANGEMENTS AND PERSONNEL	11
Employee Roles and Responsibilities	11
Bronze Command Arrangements	11
Employee Duty Schedules, Rotas and Standby Arrangements	12
5 STANDARD OPERATING PROCEDURES	13
Decision Making During Prolonged Duration Winter Conditions	13
Normal operations - planned precautionary treatments	14
Drivers Hours Regulations Policy	15
Goods Vehicles (Gritters)	15
Emergency Exemptions to Driver's Hours Rules	15
Procedure for approval of an Emergency Exemption	17

	Driver Training	17
6	SALT STORAGE	18
	Resilience	18
	Minimum salt stocks	18
	Mutual Aid	18
	Treatment requirements including Spread Rates	18
7	OPERATIONAL COMMUNICATIONS	20
8	COMMUNITY SELF-HELP AND RESILIENCE	21
APPENDICES		23
	Appendix 1	29
	Appendix 2	31
	Appendix 3	33

Introduction

This Winter Service Operational Plan describes the arrangements operated by the City of Bradford Metropolitan District Council for its Winter Maintenance Service. This document has been produced in accordance with the requirements of the “*National Code of Practice: Well Managed Highways Assets*” published in October 2016, for the 2025 – 2026 season.

The contents of this plan have been fully updated based on the findings of the reviews into the 2024/25 Winter Service which were undertaken by Highways Services involving workshops with representatives from Emergency Planning, Fleet & Transport Services and other stakeholder Council Departments. Feedback sessions were also held with elected representatives post the 2024/25 season.

The arrangements described in this document supersede all previous Winter Service Operational Plans, including but not limited to the information relating to Priority treatment routes.



1 Winter Risk Period

1.1 The Winter Risk Period runs from the 1st October until 30th April with a low-risk period from 1st October until mid-November and mid-March to the end of April with monitoring of weather information and data taking place throughout the whole period.

1.2 Bradford MDC operates one of the largest Winter Maintenance operations in the UK for a Metropolitan District Council. On a normal gritting run there are 24 routes driven covering approximately 712 miles of the highway network representing a treatment proportion of 62%. In addition to these routes the service also covers two main cycle routes covering 4 miles.

1.3 The Winter Service is provided using in-house (Council) drivers to operate its gritting fleet with the largest proportion of these coming from the Highways Department. Other services including Parks & Landscape and Cleansing provide a smaller proportion of drivers during the winter period, often in supporting roles dealing with footway treatment. The winter service operates from two depots: Wakefield Road Depot, Bradford (in the south) and Stockbridge Depot, Keighley (in the north).

1.4 Winter Maintenance is an expensive operation, and the Department of Place continues to investigate new methods of treatment and/or systems that may offer opportunities to reduce costs. Recent investments in the 2024/25 season include the deployment of a network of road surface temperature sensors which provide a more detailed understanding of road conditions throughout the district.

1.5 The geography and topography of the district makes our winter maintenance operation challenging, most notably because of the large number of settlements which are located above the 500ft snow line (the lowest elevation where snow persists). Local district centres range in altitude from Queensbury at over 1,100ft. above sea level whilst at Bradford city centre the elevation is 325ft. Other notable settlement elevations include Odsal Top (696ft.), Buttershaw (867ft.), Woodside (760ft.), Wyke (600ft.) and Clayton (700ft) in the south of the district. Whilst in the north the population centres of Allerton (750ft.), Oakworth (800ft.), Denholme (984ft), Haworth (750ft.) and Cringles at Silsden (760ft.) contrast with Keighley town centre which is at an altitude of 271ft. It is estimated that 50% of the district's population live at or above 500ft altitude. (See Appendix 2)

1.6 Operationally for the Winter Service function, the Pennine side of the district (which includes the settlements of Oxenhope, Denholme and Queensbury) is the most problematic to service during severe weather due to its rural setting.

1.7 In the wake of the severe winter in 2009/10 the Government commissioned a report named the **Quarmby Review** which examined the national response to severe and prolonged weather events. The key recommendations from the **Quarmby Review** included recommendations to:

- **Increase local resilience in salt stocks -**
In periods of extreme weather the relevant authorities (Local Highway Authorities) should not be constrained in their use of Rock Salt.
- **Establish enhanced data collection systems -**
Improve co-ordination and dissemination of research and specifically a review of technical standards and guidance, which would lead to more effective and efficient use of salt.
- **A requirement for all Local Highway Authorities (LHAs) to review their Winter Service Plans -**
Ensuring links with wider resilience planning; consultation on improving information about these plans.
- Improve communications during periods of bad weather
- Work with other Councils and the community to improve responses to snow events.

1.8 Based on these recommendations the Bradford Winter Service Plan was fully updated to incorporate changes to the service response which deal with all these areas of improvement. Since then, annual updates have been made to respond to lessons learned during the preceding season to ensure that the plan remains relevant and builds on real life responses to conditions which have arisen in the district.

History of Gritting (2017-Present)

1.9 During the past eight years there have been three significant winter periods where conditions have merited more intensive and frequent treatments of the network as illustrated in the table below. The winter of 2017-18 presented the service particular challenges due to the intensity of snowfall over the months of January to March leading to intensification of the Council's winter service to deal with the accumulation of snow and keep

the network operational. By contrast the winter of 2020/2021 brought different challenge due to the Covid-19 pandemic. The need to refocus treatment routes to keep vaccination and testing centres accessible over the winter period required close coordination between the NHS and the Council and meant routes were dynamically changed throughout the season. To further challenge the winter operation during this season weather conditions between Boxing Day and mid-February remained challenging, meaning that the network was treated every day during this period. Last year (2024/25) experienced a 10-day period where snow accumulation was significant and daytime and night time temperatures remained well below zero (at levels where road gritting treatments struggle to work effectively). The service again carried out multiple treatments of the network each day to keep the network passable.

YEAR	NUMBER OF PRIORITY 1 TREATMENTS	TOTAL SALT USED (TONNES)
2017-2018	92	19,000
2018-2019	36	6,400
2019-2020	45	7,300
2020-2021	67	11,600
2021-2022	50	9,000
2022-2023	63	9,700
2023-2024	44	7,800
2024-2025	41	11,493

1.10 The learning from these recent seasons has identified a number of service plan arrangements where significant change has been required to provide resilience to the service. Areas of improvement include

the co-ordination of response to winter across the Council, staff resource availability and deployment, improved communications, arrangements for weather forecasting and access to information.

The Law

1.11 The Highways Act 1980 Sections 41 and 58 state that the Highway Authorities have a statutory duty to maintain the highway and must always take reasonable care to ensure that the highway is not dangerous.

1.12 Section 150 of the Highways Act 1980 also imposes a duty upon highway authorities to remove any obstruction on 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”*. The Railways and Transport Safety Act 2003 (section 111) has inserted an additional section (41(1)) to the Highways Act 1980) which places a duty on Highway Authorities in respect of winter conditions. In particular, it states:

“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.”

(Note, that this is not an absolute duty given the qualification of ‘reasonable practicability’ and that the description ‘Highway’ applies to both carriageways and footways).

2 Route Planning for Carriageways and Footway

Carriageway Routes for Pre-Treatment

PRIORITY 1: MAIN ROADS

2.1 The salting network identified for precautionary pre-treatment is designed either to prevent the formation of ice (in frost conditions) or prevent snow or freezing rain from bonding to the road surface. The Priority 1 network includes classified roads (A, B and C roads), heavily trafficked routes, primary bus routes (i.e. routes carrying high frequency or multiple services not local district or “hopper” services), roads connecting isolated communities, strategic residential/estate link roads, accesses to hospitals, schools, police, fire and ambulance stations as well as known trouble spots where a treatment risk assessment has identified that precautionary gritting is essential for public safety e.g. on roads with steep gradients, tight bends or exposed areas and wet spots.



2.2 Under the Priority 1 pre-treatment plan the Council’s gritting operation will treat 24 routes over a total distance of 712 miles (which is 62% of the highway network) when weather forecasts indicate the potential for ice formation or snowfall. Each treatment route accounts for approximately 30 miles of the network and is completed within an average treatment time of 2 hours and 50 minutes (depending upon traffic flow).

PRIORITY 2: SIDE ROADS

2.3 The Priority 2 treatment routes are predominantly located in residential areas with high local population levels. Treatment of the Priority 2 network will only commence once **Operational Managers** have confirmed that all Priority 1 treatment routes have been completed.

2.4 Treatment of the Priority 2 network will be prioritised on a “needs” and “operational” basis when resources are available. Road surface conditions will be assessed based upon the information provided by the **Winter Service Officer** and the **Duty Operations Manager**. Treatment will also only be undertaken where driver’s hours requirements are not adversely affected (see Section 5 of the Operational Winter Service Plan for further details).

2.5 Priority 2 networks include minor estate roads, other bus routes (i.e. low service frequency or single hourly routes, but again excluding local “hopper” services), access routes to local schools that are of a varied width and not always capable of carrying two-way traffic. Note, if the Council becomes aware that a school has been closed due to weather conditions there will be no Priority 2 treatments undertaken until the school confirms that it is again open for pupils and staff.

PRIORITY 3: RAPID RESPONSE / PLOUGHING ROUTES

2.6 The Priority 3 treatment routes are treated under a Rapid Response Plan / Ploughing Routes when there is a possibility of severe weather forecast which includes the threat of sudden ice conditions or imminent snow fall. These routes are shorter than Priority 1 routes and should be treated within 1 hour of commencement of operations. During ploughing operations, snow removed from the highway will be managed in such a manner that it does not obstruct parked vehicles, driveways or junctions

PRIORITY 4: NIGHT PATROL OR ICE PATROL FUNCTION

2.7 From the start of the winter season the service has teams on standby 24/7. When the temperature and/or weather forecast is marginal indicating a potential for weather conditions locally to deteriorate and for snow and ice to locally accumulate gritters will patrol the network on the high ground to respond to any changing conditions.

2.8 The night patrol units are deployed to areas of high ground on the network, usually above 500 feet, and will also treat prescribed wet spots where water has the potential to run off fields and freeze causing ice patches on the carriageway or when weather forecasts are marginal for freezing conditions. They also attend emergency water leaks which are reported to the Council's out-of-hours contact centre where there is a risk of icy patches. The night patrols are in contact with the CCTV 24-hour emergency control room at all times and also the **Winter Operations Manager** who can mobilise additional resources should the deterioration in weather conditions merit it.

FOOTWAYS INCLUDING FOOTBRIDGES AND OTHER HIGH RISK PEDESTRIAN ROUTES

2.9 Treatment of the footway networks in winter is carried out by staff from the Parks and Landscapes Service of the Council. The footway networks are predominantly located in the city and town centres and are treated using white marine salt. The footway routes are treated only over a 16-week period, usually from the start of December to the end of February. However, where conditions merit treatment outside these periods staff will continue to treat the footway network throughout the period of prolonged snow and ice in accordance with the following prioritisation approach.

PRIORITY 1F

2.10 Footway gritting on Priority 1F routes consists of seven dedicated routes covering the city centre of Bradford, town centres in Shipley, Baildon, Bingley, Keighley and Ilkley. The footways treated in the city and town centre are pedestrian areas, busy urban shopping and business areas, transport interchanges, public buildings and outside St Luke's, Bradford Royal Infirmary (BRI) and Airedale hospital at Keighley. These footways are treated when temperatures reach -2°C or below or during periods of prolonged frost and ice or snow events.

PRIORITY 2F

2.11 These footways are medium usage routes through local areas, used by the public to access local shopping areas, post offices, medical centres and school routes in busy residential areas and villages. Priority 2F footway gritting routes will be gritted after all Priority 1F routes are completed and resources are available.

2.12 Hand gritting of all other priority areas will be carried out as and when resources become available.



AD-HOC GRITTING REQUESTS

2.13 During the winter season any requests which are received for ad-hoc treatment of the highway network will be dealt with on a priority basis once treatment of the Priority 1 (roads), or Priority 1F (footways) networks have been completed. The service will triage all such requests on the following hierarchical basis:

- Emergency services “blue light” response.
- Health and Well Being including Care Trusts.
- Bus Operators.
- MPs and Elected Members.
- General members of the public.

2.14 All ad-hoc gritting requests should be made via the Council’s Contact Centre so that requests can be assessed against this hierarchy as well as to ensure that where multiple call are received for the same location these can be collated and allocated to drivers avoiding the potential for multiple visits to the same location diverting resources from other requests which have not been dealt with. **Requests made via the Winter Maintenance website will not be addressed until all ad-hoc requests logged via the Contact Centre have been completed.**



Requests for amendments of gritting routes during the winter service period

2.15 The Priority gritting routes (including footway routes) contained within this year’s Winter Service Operational Plan have been developed for the 2025/2026 season based on a detailed risk-based assessment of the network. Risk assessment criteria including highway classification, daily traffic volumes, physical characteristics and local community needs have been used in this process. Modification of the routes contained within this plan to incorporate additional network lengths during the 2025/2026 season will only be granted under exceptional circumstances by the Bronze Command arrangements (see Section 4.7). Any requests which are not granted will be retained and assessed at the end of the current winter season for potential inclusion in the next iteration of the Winter Operational Plan as described below. All requests for amendments to gritting routes should be made via the Council’s Customer Contact Centre on 01274 431000.



Criteria for assessment

2.16 To enable the Bronze Command to decide on each request for amendments to the gritting routes all requests will be subject to a detailed risk assessment evaluation prior to consideration. The Council does not guarantee that all applications can, or will be, incorporated within either the provisions described within this plan or its future iterations.

2.17 Where the lengths of highway requested do not meet the requirements of the risk assessment evaluation they will not be considered further. Those which do meet the threshold may be incorporated within the current plan or be held for incorporation in the next plan at the discretion of the Council.

Right of appeal

2.18 The decision of Bronze Command in respect of changes to the arrangements described in this operational plan is final and there is no right of appeal.

Response and Treatment Times for Carriageway Treatments

2.19 The Council monitors its performance during the winter season in relation to **response times** and **treatment times**. The **response time** is the period between a decision being taken to commence treatment by the **Winter Operations Manager** and the vehicles leaving the service depots. The **treatment time** is the period between the vehicles leaving the depots and the completion of the treatment of their route.

2.20 The target **response time** for the treatment of Priority 1 carriageway routes is **1 hour**. The individual target treatment times vary based on actual route length and characteristics of the network within the route but the average treatment times for all Priority 1 routes is **2 hours 50 minutes**.

2.21 Treatment of Priority 2 carriageway routes should commence within a target response time of **6 hours** following commencement of the Priority 1 network. Priority 2 networks will be dealt with in risk priority order and in accordance with the driver's hours restrictions.

2.22 Where necessary Priority 3 routes are treated within a target window of approximately **1 hour 30 minutes**.

Response Treatment Times for Footway Routes

2.23 The target response time for Priority 1F routes is **1 hour** with a treatment time of **2 hours** per route.

2.24 Treatment of the Priority 2F routes will commence at the discretion of the **Winter Operations Manager** and only after the treatment of Priority 1F routes has been completed. There are no specific treatment times for these routes.

Allocation of Plant, Vehicles, Equipment and Materials to Routes

2.25 The Priority 1 network covering 24 routes is serviced by the following:

NUMBER OF VEHICLES	TYPE OF VEHICLE
21	18 tonne Bulker (Fixed gritter body with body and plough)
2	Tractor / trailer / gritters with plough
3	7.5 tonne Multi-spreader
1	Tractor / Cycle Route chemical sprayer

2.26 All the above vehicles are fitted with GPS Tracking systems which include sensors to collect information related to gritting spread rates and spread patterns. Records from these units are reviewed daily by the **Winter Service Manager** and are retained throughout the winter period as a record of the treatment of the network.

2.27 Priority 4 (Night Patrol) routes are patrolled by two 18-tonne Bulk Gritters deployed from Stockbridge and Wakefield Road depots. These units can deal with localised issues on the network directly throughout the nighttime without the need to replenish their grit stock.



Priority 1F routes are gritted by seven Kubota (small tractor) units with spreaders which are provided and operated by staff from the Parks and Landscape Service.

Allocation of Plant, Vehicles, Equipment and Materials During Periods of Severe Weather

2.28 During periods of severe weather (or protracted periods) the winter service operations team will call in addition plant and staff resources from the Private Sector. Currently, arrangements exist with local private-sector providers to bring the following additional resources into the Winter Maintenance operation should the need arise.

NUMBER OF VEHICLES	TYPE OF VEHICLE / DRIVERS
6	Tractors with snow ploughs
4	Bob Cats Skid Steers
2	JCBs
9	Footway Kubota / tractors
10	Gritter drivers
20	Operatives – hand gritting – snow clearance

Location and Maintenance of Grit Bins

2.29 Currently there are more than 600 Council maintained grit bins on the network which, because of the topography and rural nature of these constituencies, are predominantly located in the north of the district as illustrated in the table below:

PARLIAMENTARY CONSTITUENCY AREA	NUMBER OF GRIT BINS
Bradford West	78
Bradford South	91
Bradford East	112
Keighley	156
Shipley	149

2.30 The Council maintains a computerised inventory of all grit bins for which it is responsible, which is in the form of a GIS map layer which is available via the Council's website on the Winter Maintenance pages. Any grit bins not on this inventory list will not be maintainable by the Council and it is assumed that private arrangements for their maintenance and replenishment exist. **The Council will not replenish grit in bins which are not registered on its asset inventory.**

2.31 Deployment of grit bins is essential for ensuring that those areas of the network which are not covered by either Priority 1 or Priority 2 treatment routes have a facility for treatment of snow and ice by residents / road users in periods of wintery conditions.

Maintenance of grit bins

2.32 All Council grit bins are inspected prior to the start of the winter season to identify any maintenance/replacement requirements and are refilled as part of this audit which is usually completed before the end of October.

2.33 Further refills of Council grit bins are provided when stocks in these bins are depleted. This service will only operate on bins which have been provided by Bradford Council and are identified on the assets register. Alternative arrangements exist for the maintenance of bins provided by Parish and Town Councils which are not described in this plan. Any request for replenishment of salt in Council bins is handled directly through the Council's Customer Contact Centre (01274 431000).



Replenishment of grit bins during the winter season will only take place once all Priority 1 and Priority 2 routes have been treated.

Applications for new grit bin locations

2.34 The Council will assess any application for new grit bin locations using a risk-based assessment criteria (**SEE APPENDIX 3**). The use of this assessment matrix ensures that only those locations where the greatest risk of danger to the public is due to the localised potential for the presence of snow and ice in locations which are not treated by other means are prioritised for deployment of grit bins.

2.35 Where an application is received for a new grit bin an assessment of the location will be undertaken by the Council. The assessment of any application will be carried out within 28 days of its receipt. Where a site does not meet the criteria assessment threshold the application will be rejected. If contact information is provided at the time of application the applicant will be informed of the Council's decision. **There is no right of appeal against the outcome of this decision.**

2.36 Where a site meets the minimum threshold, and alternative sources of grit bin provision under the Community Grit bin scheme are not appropriate the site will be added to the list of sites for future grit bin deployment. New grit bin deployments will only take

place prior to the commencement of the next winter season, subject to appropriate budgetary provision.

Community grit bin scheme

2.37 During the Winter of 2017/18 the Council introduced a Community Grit Bin scheme. This scheme allowed several Town Councils to purchase grit bins with rock salt from the Council at a cost of £120 for each bin around their parish without relying on the Council to assess and deploy facilities in line with its own procedures. The grit bins provided under this scheme are managed by the respective Town or Parish Council and not Bradford Council. Where Community Grit Bins stock of salt becomes depleted further replenishment can be arranged by the Town or Parish Council with Bradford Council at a charge of £60 per bin.

2.38 The Town and Parish Councils who have taken part in this scheme have surveyed their own areas and decided on the location of the grit bins which they will provide. This scheme has been very successful in enhancing community resilience to winter weather impacts on the network.

2.39 Arrangements for Town and Parish Councils to consider applications for new locations will vary depending upon their individual requirements. Applications for grit bins to be provided under the Community Grit Bin scheme should be made direct to the appropriate office as described on their website.



3 Weather Prediction and Information

Road Weather Information Bureau Services

3.1 Since the winter of 2017/18 Bradford Council as part of the West Yorkshire Combined Authority, has contracted DTN Roadmaster and Vaisala Weather Bureau to provide weather information and forecasting to the authority daily during the winter risk period. This section of the Winter Service Operational Plan details the arrangements for the receipt of information, together with other sources of data which are available to the service in determining its **Operational Response Plan** and how these feed into the decision-making process.

Road Weather Stations

3.2 Weather forecasting for the district is monitored from two dedicated weather stations located at Queensbury and Steeton which feed road surface temperatures to the Vaisala Weather Bureau. Weather information for DTN Roadmaster is also gathered from these stations along with their own weather forecasting models. As part of the improvements following the 2017/18 season further upgrades have been made to these weather stations to enhance their data accuracy and reliability, responding to the challenges posed by outdated technology and the unavailability of essential parts. The data available from these outstations can be presented in both graphical and tabular formats that include:

- Road surface temperature.
- Air temperature.
- Wind and speed direction.
- Precipitation.
- Surface state (including level of salt present on the road surface).

The Decision-Making Process

3.3 The decision to carry out winter service operations and the type of operation to be carried out (e.g. pre-gritting of all routes or pre-treatment of water run-off areas and wet spot gritting) is made by the **Winter Service Officer** along with the **Winter Operations Manager** on duty after consulting the 24-hour Specialist Road Weather Forecast information. In considering the information in the specialist forecast further sources of information may be consulted including interrogating information from the Met Office

Hazard Manager system as well as calling on the services of the duty meteorologist in Exeter, accessing sensors on the weather stations directly, reviewing the Council's CCTV camera network together with seeking any additional information from the other West Yorkshire Authorities about their treatment plans.

3.4 As part of the upgrades in data sources for winter decision making introduced during the 2024/25 winter season, the Council has deployed an additional network of road surface temperature sensors at key locations on the network. These sensors increase the resolution of data available to the **Winter Service Officer** and **Winter Operations Manager** enabling the potential for targeted treatment of the network to be introduced.

Forecast Information

3.5 The information provided by DTN on weather conditions consists of hourly road surface conditions and is also supplemented by direct access to the information from the outstations, which improves the accuracy of these forecasts. The Specialist Road Weather Forecast includes:

- **Monitoring Summary** - this information will be available from around 06:00hrs and will provide an assessment of the weather conditions for the next 36 hours.
- **Main lunchtime forecast** – this is available from 11:00hrs. This forecast contains a graphical and text forecast giving details and confidence of hazards including ice, hoar frost, snow, fog, strong winds to rainfall. Wind speeds and direction, road state and snow depth accumulations at various altitudes predictions can also be provided.
- **A 5-day and 15-day forecast** - expected hazards of ice, hoar frost, snow, fog, strong winds and rainfall together with comments on the outlook is provided on a weekly basis.
- **Evening Update** - this is a scheduled update forecast which is available from around 17:00 hours which provides updates to the main lunchtime forecast and is generally valid for the next 36 hours.

3.6 The winter service operation also has access to frequent weather and severe weather warnings which are issued by the Met Office via the Council's Emergency Planning Team.

Changes to the weather forecast

3.7 DTN Roadmaster carry out 24-hour monitoring of conditions and if these vary significantly from the specialist forecast prior to the next scheduled update they will contact the **Winter Service Officer** to advise of the change and, where appropriate, will issue an updated forecast. In instances where a revised forecast is issued or where the **Winter Service Officer** considers conditions have deteriorated from the anticipated conditions the winter gritting response may be amended at short notice. Where necessary consideration may need to be given to invoking the Council's Emergency Exemption to drivers hours policy as described in Section 5 of this plan where treatment of the network is likely to vary from the standard treatment pattern.

Night and Ice Patrol Function

3.8 At the discretion of the Winter Service Officer a Night or Ice Patrol function will be conducted by one of the Council's contracted winter service providers or by an emergency Call Out Officer. These resources will work in conjunction with the Winter Service Officer to verify or amend the forecast temperatures and the associated winter service action response.

Timing and Circulation of Information

3.9 The decision on Winter Service operations to be carried out over any 24-hour period is made at 11:00hrs each day by the Winter Services Officer. An Operational

Response Plan is developed by the **Winter Services Officer** based on all information provided in the Specialist Road Weather forecast. The information contained within the Specialist Road Weather forecast together with an Operational Response Plan is circulated internally to Council departments and updates on Council actions are provided to emergency services and social media outlets by 16:00hrs.

3.10 Whilst the formal **Operational Response Plan** is communicated following receipt of the 11:00hrs forecast a further review of this plan will be undertaken at 18:00hrs based on the forecast update by the DTN Roadmaster. Any changes in the action plan will be considered by the **Winter Service Officer** and if necessary, communicated internally to Council departments and to the emergency services.

3.11 The **Operational Response Plan** only describes the Council's precautionary treatment plan actions and typically covers actions which will take place between 18:00hrs and 07:00hrs the next day. Decisions on any actions to respond to deteriorating weather conditions throughout the working day (07:00hrs to 18:00hrs) will be taken by the **Winter Operations Manager**, in consultation with the **Winter Services Officer**.

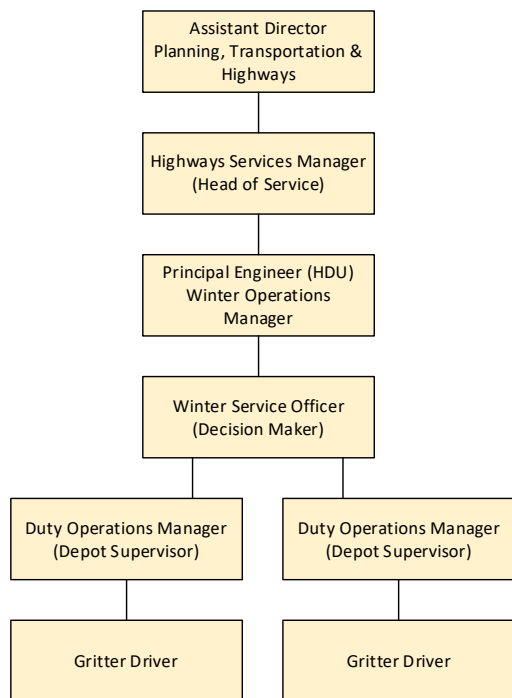
3.12 Treatment actions taken between these two operational periods will be coordinated by the **Winter Operations Manager** who will be responsible for ensuring compliance with the drivers' hours requirements outlined in Section 5 of this plan.



4 Organisational Arrangements and Personnel

Employee Roles and Responsibilities

4.1 The organisation of staff for the Winter Service is shown in the chart below:



4.2 The **Highways Services Manager** holds the overall responsibility for the Winter Maintenance Service including responsibility for ensuring that this Winter Service Operational Plan is produced and updated annually and is sufficient in scope and content. The Highways Services Manager is also responsible for confirming approval of any Emergency Exemption of drivers working hours caused by prolonged or severe weather conditions.

4.3 The **Winter Service Officer** holds the overall responsibility for decision making in relation to the development of the Operational Response Plan during any 24-hour period as described in paragraph 3.8. The Winter Service Officer (who acts as the Decision Maker) is responsible for monitoring the road and weather conditions, reaching an appropriate decision on treatment of the network and passing this information on to the Duty Operations Manager who is responsible for organising the deployment of gritters.

4.4 The **Duty Operations Manager** holds responsibility for supervising operatives and arranging effective utilisation of vehicles and plant during Winter Service operations to effect swift treatment of the road

network. The Duty Operations Manager is responsible for ensuring that all gritter drivers comply with the working hours requirements of the Council and for arranging deployment of alternative cover should potential breaches of safe driving hours be anticipated in responding to the daily Operational Response Plan. Decisions relating to variations to the winter service provision or invoking of emergency exemptions provisions shall be referred to the Local Bronze Command group for consideration.

4.5 **Gritter Drivers** (including Footway Gritter Drivers) hold responsibility for ensuring that:

- The gritting vehicle is in good working order through carrying out daily and weekly checks, ensuring that all defects are reported to Fleet Services. Specific responsibilities for gritter drivers are set out in the Council's Drivers Handbook issued by Fleet & Transport Services.
- The gate settings on the vehicle are set to the pre-determined spread rate.
- The allocated gritting route is followed correctly.

Bronze Command Arrangements

4.6 This Winter Service Operational Plan continues to be supported by a local Bronze Command decision making structure to provide strategic oversight and direction to winter operations throughout the period. The local Bronze Command group comprises the following members, or their nominated deputies:

- Highways Services Manager
- Emergency Planning Manager
- Winter Operations Manager
- Winter Service Officer

4.7 The Bronze command arrangements will be operational throughout the winter risk period and will meet to provide operational direction to the service when required. Members of the group will be on call 24/7 during the winter risk period.

4.8 This group meets collectively to agree any modification to the Priority treatment routes and makes recommendations to the Council's Silver Command Group for discussion at a multi-agency command and control approach to dealing with the weather event. This approach is compatible with the wider Yorkshire

Resilience Forum arrangements.

4.9 During prolonged periods of inclement weather, the Service Bronze Command group will consider whether temporary implementation of reductions in the lengths of roads to be gritted in order to maintain service resilience is required. Where any such reduction is proposed this information will be discussed with the Council Silver Group prior to its implementation.

4.10 More detailed explanations of the roles of the winter maintenance operatives are included in the 'Winter Maintenance Good Practice Guide' published by NWSRG.

4.11 All personnel involved in the winter service should acquaint themselves of their duties, responsibilities and working procedures necessary to carry out the tasks assigned to them under the winter maintenance operations effectively.

Employee Duty Schedules, Rotas and Standby Arrangements

4.12 This section of the Winter Service Operational Plan describes the duty schedules, rotas and standby arrangements for all roles within the winter function.

4.13 The **Winter Operations Manager** and **Winter Service Officer** shall be responsible for providing 24-hour cover during each week of their rota commencing 07:00hrs on Monday morning and terminating the following Monday at 07:00hrs.

4.14 Rotas for **Gritter Drivers** will cover two operational arrangements. Gritter drivers shall be on-call for deployment 24-hours per day for a period of 7 days commencing 07:00hrs on Monday morning and terminating the following Monday at 07:00hrs. Within this period, and to comply with the Council's Driving Hours policy requirements, Gritter Drivers shall not be permitted to drive on more than six consecutive days per operational week and must receive 10-hours continuous rest within any 24-hour period. The responsibility for ensuring compliance with this requirement rests with the **Duty Operations Manager**.

4.15 Nominated **Duty Operations Managers** will be allocated weekly rotas to ensure that depot sites are available for operations throughout the winter period. **Duty Operations Managers** shall be on standby from 07:00hrs on Monday morning and terminating the following Monday at 07:00hrs.

Contact Details

Richard Hollinson Assistant Director Planning, Transportation & Highways	01274 433766
Richard Gelder Highways Services Manager (Head of Service)	01274 437603
Callum Mapplebeck Principal Engineer (HDU) / Winter Operations Manager	01274 434199
Paul Naylor Divisional Manager / Winter Service Officer	01274 431972
Fran Mapplebeck Principal Engineer (Highway Maintenance) / Winter Service Officer	07484 499971

Outside of normal working hours all contact should be made through the Customer Contact Centre on 01274 431000

5 Standard Operating Procedures

5.1 Good communication between the **Winter Service Officer** and the **Winter Operations Manager** is crucial to the success of the winter maintenance operations.

5.2 The daily **Operational Response Plan** (prepared by the **Winter Service Officer**) will be provided to the **Winter Operations Manager** to advise on the action plan for the coming 24-hour period. The **Winter Service Officer** will be responsible for instructing the nominated **Duty Operations Managers** to arrange opening of the respective depot sites to facilitate the necessary action.

5.3 The **Duty Operations Manager** will contact the **Gritter Drivers** on the current standby duty rota to arrange their attendance at the depot for action. All **Gritter Drivers** can be contacted either via landline or mobile telephone. The **Winter Operations Manager** will be regularly updated as the operation proceeds and when the action is complete.

5.4 Constant liaison between the **Winter Service Officer** and **Winter Operations Manager** will occur throughout the day if the weather patterns change, also if certain roads (in particular those on high ground) are causing concern.

5.5 During severe snow or ice conditions the Emergency Planning Team will coordinate and facilitate the Council's resources in liaison with

external partners (emergency services, health community etc.) through a multi-agency approach. The Emergency Planning Team will work with the Winter Operations Manager to prioritise where resources are deployed during such periods of disruption.

Decision Making During Prolonged Duration Winter Conditions

5.6 Where conditions persist over four continuous days a daily review of network conditions, short- and medium-term weather forecast and **Operational Response Plans** will be carried out by the Bronze Command to identify service resilience issues and review service responses to weather conditions throughout the district. This group will meet at 10:00hrs each day at the Council's Wakefield Road depot (or via video conferencing) until inclement conditions subside. Throughout any weather event the **Winter Service Officer** shall communicate with DTN Roadmaster and Vaisala call centres to speak with the duty forecaster to make further decisions or amendments regularly for gritting operations. The briefings provided to the **Winter Service Officer** as part of this arrangement will be discussed at the local daily review meeting.

5.7 Where conditions persist for five or more continuous days the Bronze Command group will review driver shift rotas to ensure compliance with the Council's driving hours policy. Whilst during such



periods the service will maintain its 'standard' treatment schedule of pre-gritting operations commencing early evening (usually at 18.30hrs) and being fully completed by 21:00hrs as well as operating the morning pre-grit commencing at 05:00hrs and being completed by 08:00hrs the service will introduce special measures in how it responds to manage driver fatigue, including:

- All **Priority 1** routes will be subject to a risk assessment for the formation of ice/accumulation of snow to identify any routes which can receive reduced treatment visits. **Gritter drivers** who would ordinarily be deployed on routes which are deemed passable, with little sign of increasing snow accumulation/formation of ice will be stood-down for the next treatment action to provide sufficient contiguous rest to a proportion of the standby shift (a minimum of 10-hours). Drivers who have been stood down will then alternate with drivers on other routes as appropriate to maintain a compliant driver duty rota on the sixth and seventh days.
- Where conditions are likely to extend beyond seven days of continuous treatment action the service will change the standby duty arrangements of **gritter drivers** from seven days to six days for the period of continued disruption. This action will be agreed at the Bronze Command at its meeting on the sixth day of action.
- To supplement internal driver resources the utilisation of the Night Patrol contractor to provide cover to allow a proportion of drivers to stand down will be implemented.

5.8 If none of the above actions resolve the issue of compliance with driver hours requirements consideration will be given to the declaration of an emergency and arrangements for a temporary exemption for the extended period of inclement conditions will be implemented in accordance with the procedure contained within this plan.

5.9 All information which is received in relation to weather forecasts, decisions from local review of operations etc. must be saved and any verbal information received during phone calls with the Duty Forecaster must be logged in the gritting diary.

Normal operations - planned precautionary treatments

5.10 Dependent upon the weather forecast, pre-gritting operations will commence early evening and be fully completed by 18:30hrs. If necessary, an early pre-grit will commence at 05:00hrs and be completed by 08:00hrs. All routes will be completed in either morning or evening pre-treatment operations before road surface temperatures reach 0°C.

5.11 Once the pre-grit operation is complete, the standby shift of drivers and supervisors will be stood down.

5.12 Any additional gritting treatments which are required during the working day will utilise the off-duty rota of drivers to treat the high-risk **Priority 2** routes (or re-treat **Priority 1** network). During evening periods consideration will be given to operating the Night and Ice patrol function. The decision on operating such a service will be made by the **Winter Operations Manager** in consultation with the **Winter Service Officer**.

5.13 **Priority 2** actions are determined by the **Winter Operations Manager** once the **Priority 1** network is clear. Decisions in relation to deployment of drivers on **Priority 2** network will be based on risk assessment of routes and availability of resources.

5.14 **Priority 3** gritting action is again determined at the discretion of the **Winter Service Officer** and **Winter Operations Manager**.

5.15 **Priority 1F** and **2F** treatment will be undertaken at the discretion of the **Winter Operations Manager** who will liaise with the Parks and Landscapes Officers on standby duty.



5.16 A daily record sheet must be completed by **Depot Operation Managers** for every call-out occasion. This record will include details of night patrol and/or ice patrol operations, any instructions given, or changes to planned arrangements must be accurately recorded.

5.17 It is the responsibility of the **Winter Operations Manager** and **Depot Operation Managers** to ensure that there are sufficient vehicles with drivers and equipment (that are maintained by Fleet Services) available at any time.

5.18 The operations team must ensure all weather forecasts, daily record sheets together with any other pertinent information for future reference (i.e. any claims or litigation and complaints) are kept at Wakefield Road Depot, Bradford.

Drivers Hours Regulations Policy

5.19 The Council's Driver's Hours Policy determines the total hours a driver can work during the day, the minimum length of break between shifts and the weekly rest periods. Bradford's Winter Maintenance Operation for driver's hours are governed by the Council's Domestic Drivers Hours Policy. Domestic Rules apply to all driving activities in as much that where a vehicle is below 3.5 tonnes the rules must still be observed, but where the vehicle is over 3.5 tonnes and is driven by a vocational driver then the driving hours must be recorded in line with Domestic Rules. Council drivers are also required to comply with Working Time Directives for mobile workers (drivers).

Goods Vehicles (Gritters)

Daily driving limit

5.20 Drivers must not drive for more than ten hours per day. The daily driving limit applies to time spent at the wheel driving on a public road. Off-road driving counts as duty-time.

Duty time

5.21 Duty time for all council drivers is defined as any working time. For any self-employed drivers the definition of duty time is only that time spent driving vehicles or doing other work related to the vehicle or its load. The daily Duty Time limit is not more than 11-hours in any working day. This limit does not apply on

any working day where operatives do not drive.

5.22 Under the Council Driver's Hours policy, the minimum driver's rest period when driving is 30 minutes in Duty Time which reaches 6 hours; 45 minutes for Duty Times between 6 hours and 9 hours and 60 minutes for over 9 hours with a maximum 11-hour duty period. Breaks are to be split evenly over the working day in 15-minute periods with the last period taken before the 10th hour. Breaks are not included in total Duty Time. (this gives a 12-hour day maximum once breaks are deducted).

5.23 Drivers are not permitted to drive for more than six consecutive days in any one period and must not exceed 48 hours' total working time per week over a 17-week reference period. Drivers are required to take a minimum continuous daily break of 10 hours within any 24-hour period.

5.24 In setting its winter gritting policy due regard has been given to the policy advice issued by Bradford Council's Vehicle Action Group. Previous winter work records and demand have been reviewed to develop this plan which provides resources to match demand in so far as these can be predicted.

Emergency Exemptions to Driver's Hours Rules

5.25 It is recognised that cases of emergency situations may occur beyond the scope of this plan i.e. "*an occurrence due to unusual and unforeseeable circumstances beyond the control of the worker's employer*". Under Regulation 2 of the **Drivers' Hours (Goods Vehicles) (Exemptions) Regulations 2006**, the domestic driver's limits (10-hours driving and 11 hours' work per day) can be exceeding in the 'cases of emergency' such as those defined below:

- a. Events which cause or are likely to cause such:
 - i. danger to life or health of one or more individuals or animals or
 - ii. a serious interruption in the maintenance of public services for the supply of water, gas, electricity or drainage or of telecommunication or postal services, or
 - iii. a serious interruption to the use of roads, railways, ports or airports, as to necessitate the taking of immediate action to prevent the occurrence or continuance of such

danger or interruption, and

- b. events which are likely to cause such severe damage to property as to necessitate the taking of immediate action to prevent the occurrence of such damage’.

5.26 In such circumstances the Council’s Domestic Driver Hours policy permits the rest periods described in paragraph 5.22 and 5.23 above to be reduced with the caveat that the worker is allowed to take an equivalent period of compensatory rest. For services which provide emergency provision (e.g. gritting), the above test still applies

5.27 In the event of weather events which are unusually severe or sustained it may be necessary to ask drivers to work additional hours or days. It is anticipated that where this falls on rest day that the drivers will work a further three hours and then have a sustained break of 11 hours before working a further three hours. Therefore, driver fatigue will be mitigated. Where such measures are implemented, managers will monitor the situation and provide compensatory rest at the first opportunity. If there is a weather pattern or event that cannot reasonably be foreseen, then the **Winter Service Manager** may consider applying for use of the emergency provision to ensure public safety.

5.28 An emergency exemption situation may also be necessary where actual weather conditions differ from the specialist road weather forecast on the day of operation. In such circumstances the services’ **Operational Response Plan** will be reviewed to see if

the changes constitute a potential emergency event. Examples of such circumstances can include:

- Advice from the Council’s night patrol operatives that conditions have deteriorated from the original weather forecast.
- Receipt of an unplanned forecast / update forecast after determination of winter operations based on the specialist road surface forecast (note, the unplanned forecast must show deterioration in either severity or duration of winter events from the planning forecast to be considered as potentially giving rise to the emergency exemption).
- Receipt of multiple reports of ice/snow accumulations on the network from the public, elected members (which have been visually verified via the CCTV camera network), emergency services or the Council’s Emergency Planning team.

5.29 Additionally, an emergency exemption may be sought where minimum levels of cover cannot be provided during the winter gritting operations due to staff sickness which has a detrimental impact on the ability of the service to deliver the function.

5.30 In all the above circumstances the decision to invoke the emergency provisions with this plan must be made by the **Highways Services Manager** in conjunction with the local Bronze Command group.

5.31 The **Winter Operations Manager** and his team are responsible for ensuring that the drivers’



hours are not exceeded and will ensure that the records are accurate. Rest time for drivers will be paramount in all decisions made on gritting during severe weather.

5.32 All timesheets are audited on a weekly basis by the Technical Enforcement Coordinator, Fleet & Transport Services.

Procedure for approval of an Emergency Exemption

5.33 Where a situation giving rise to the necessity for an emergency exemption arises, the following procedure will be adopted:

5.34 Emergency Exemption Approval shall be sought from the local Bronze Command group using the prescribed form produced by Fleet Services. Decisions on invoking the emergency exemption approval shall be taken by the **Highways Services Manager** (or nominated representative) following review of the information discussed at the Bronze Command meeting. Once approval to declare an emergency has been given this will be communicated to the Fleet Compliance Manager.

5.35 The process is illustrated in the following decision tree diagram opposite.

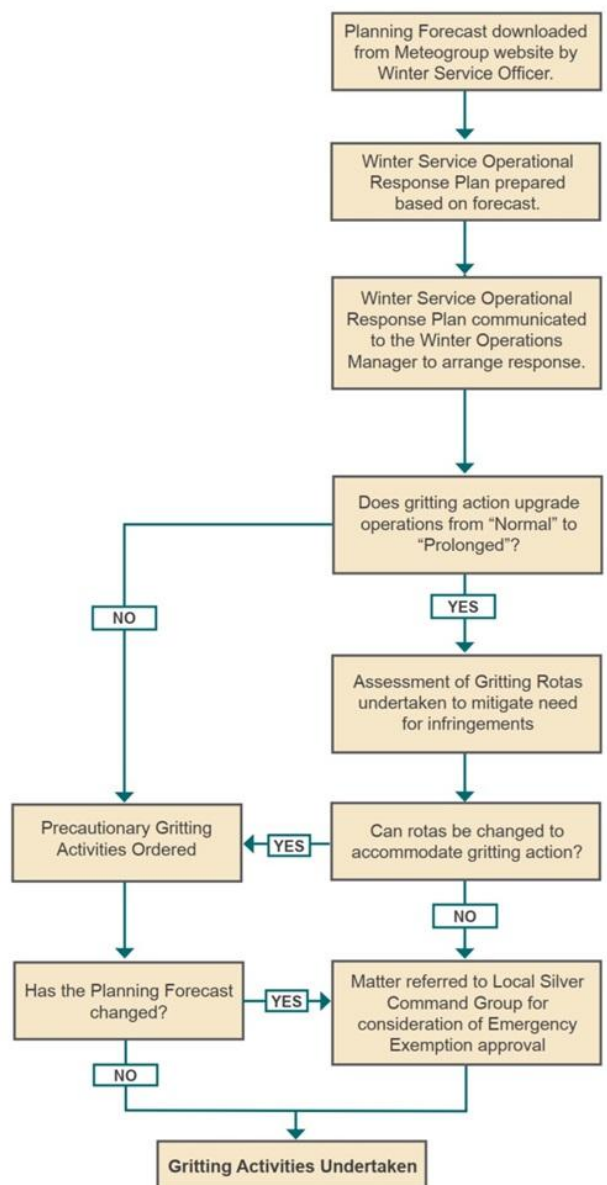
Driver Training

5.36 All **gritter drivers** deployed on the winter gritting routes receive a comprehensive programme of training, both upon first registering on the winter service rota and then annually thereafter

5.37 New **gritter drivers** will, in addition to attaining their HGV Class C driving license complete their Driver's CPC qualification in-house which covers such aspects as Health & Safety legislation, control measures and safe working methods and working practices appropriate to the winter service.

5.38 Existing **gritter drivers** will receive an annual programme of refresher training comprising:

- Dry runs of the **Priority 1** treatment routes in order to familiarise themselves about each route before the start of the winter season.
- Practical refresher training on safe working practices including changing snow ploughs on wagons.
- Toolbox talks at the start of the season.



6 Salt Storage

6.1 The Rock Salt for the district is stored at two locations across the district.

LOCATION	MAXIMUM STOCK (TONNES)	MINIMUM STOCK (TONNES)
Wakefield Road Depot	17,600	12,400
Stockbridge Depot	7,900	2,100
Totals	25,500	14,100

Resilience

6.2 The Council's Resilience level is determined as:

OVERALL WINTER PERIOD	1 st October – 30 th April
CORE WINTER PERIOD	1 st December – 28 th February
DAYS RESILIENCE (OVERALL WINTER PERIOD)	15 Days
DAYS RESILIENCE (CORE WINTER PERIOD)	20 Days

Minimum salt stocks

6.3 Based on recent experience, the salt stock levels at the commencement of the winter season have been reviewed to the revised maximum storage capacity available across the district. The total stock level of 25,500 is more than sufficient for an average winter and provides more than the recommended 12-day level of resilience.

6.4 Resilience within the country is managed through the **Civil Contingencies Act 2004** and the Local Resilience Forums. These forums are based on Police Force areas with Bradford's forum being West Yorkshire.

6.5 The members of this forum give strategic direction through the Strategic Coordination Group (GOLD) to the Tactical Coordination Group (SILVER). They in turn liaise with each Local Authority to ensure the coordination of the emergency for both supplies and other resources.

6.6 Within Bradford the coordination of salt stock resilience is managed through a Local Council Silver group whose members include Emergency Services, Health and Local Authority Officers. Feeding into this group would be the local Bronze Command Group. **The salt stock figure to trigger this review will be 10,650 tonnes which would give 15 days' resilience.** At this point the extent of Priority network treatment could be reduced from 712 miles per treatment to 412 miles (**Priority 3**).

Mutual Aid

6.7 Mutual aid is a pre-agreement between one or more organisations to assist each other, as far as practicable, to overcome disruptive challenges. Mutual aid between authorities is often used in response to "wide" area emergencies as the impact on the local authorities, emergency services and other resources can be overwhelming. Within West Yorkshire Resilience Forum an agreed Mutual Aid protocol has been established signed by all five West Yorkshire Chief Executives.

6.8 Mutual Aid in salt supply and contingency arrangements in advance are in place through a Salt Cell Group arranged by the DfT (Department for Transport) in London. The other four Local Authorities in West Yorkshire; Leeds, Calderdale, Kirklees and Wakefield are represented in this group. Salt Cell monitors and communicates with the **Winter Operations Manager** weekly during the winter season.

6.9 The DfT also maintains a substantial national emergency salt reserve and have a robust distribution process in place, if for any reason, this salt of last resort is needed to be allocated.

Treatment requirements including Spread Rates

6.10 The precautionary salting of the network is carried out at 15-20g/m². At specific locations, or

where ice and snow has already formed on the road surface and on steep hills, the drivers are instructed to increase the spread rate range to 20-30g/m².

6.11 These spread rates are based on The Best Practice Guide for Spreading Salt produced by the NWSRG (National Winter Service Research Group). This group is funded from the Local Authorities and UK national government and provides guidance to practitioners with a “what you need to do and how to do it safely, sustainably and cost-effectively approach.

ROUTE PRIORITIES	MINIMUM WINTER NETWORK (TONNES/RUN)	MINIMUM WINTER NETWORK (TONNES/DAY)	OVERALL WINTER PERIOD 15 DAYS RESILIENCE	CORE WINTER PERIOD 20 DAYS RESILIENCE	30 DAYS RESILIENCE
Priority 1	120 x 2	240	3,600	4,800	7,200
Priority 2	100	200	3,000	4,000	6,000
Priority 3	80	80	1,200	1,600	2,400
Priority 4	30	30	450	600	900
Footways	20	20	300	400	600
Totals		480	8,550	11,400	17,900

7 Operational Communications

7.1 Daily winter service operations will be posted on the City of Bradford Metropolitan District Council website and communicated via the Council's social media outlets.

7.2 During the winter season the daily **Operational Response Plan** is communicated to elected members, the Council's Senior Leadership team and the Customer Contact Centre. Daily briefings will be arranged with Officers and members of the Chief Executive's Management Team (CMT) during periods of severe weather with a particular focus on salt stocks and level of resilience by the Service's Bronze Command group.

7.3 All Operatives driving vehicles involved in the gritting operations have access to mobile phones. Members of the Service Bronze Command group also have access to video-conferencing facilities to ensure effective management of the service on a daily basis.

7.4 Since 2010 improvements to the Winter Service Communications have improved by using the Council website and social media. The website pages are regularly updated and contain information about the service. All the routes treated, are now identified on plans for all roads and footways in the district. As a result of the 2017/18 review plans showing the **Priority 2** treatment network have been added to the Council's interactive webpage.

7.5 The Council's website also contains advice and guidance on what to do during winter conditions. There is also a form on the website for the public to request gritting, or alternatively requests can be logged interactively on the gritting maps on the website. Requests received via the website are managed by the Customer Services section who will forward on request to the operations team on a daily basis.

7.6 Social media has developed into an important communication method to give out operational information. We currently have over 38,000 followers on X (Twitter), 39,000 followers on Facebook, 7,000 Instagram followers and over 13,000 followers on LinkedIn.

7.7 The Council's Stay Connected e-newsletter system has also developed into an important communication method to keep subscribers updated with the **Winter Operation Plan**. The e-newsletter has a range of topics which users can subscribe to in order to stay up-to-date with:

- Emergencies (c. 19,500 followers)
- Extreme Weather / Winter Alerts (22,500 followers)
- Roads and Roadworks (11,000 followers)
- Weekly Council News (17,500 followers)

SIGN UP AND STAY CONNECTED



www.bradford.gov.uk/winter



[@bradfordmdc](https://twitter.com/bradfordmdc)

8 Community Self-Help and Resilience

8.1 In 2011 a pilot scheme to introduce “Snow Teams” within Bradford district was introduced. This scheme assisted groups within communities to carry out winter treatment of footpaths. The community self-help and the snow team scheme enables communities to provide an enhanced service over and above that which the council provides. The scheme was promoted through the Council website and social media. Since the introduction of the scheme the number of snow wardens has grown and groups across the district have been provided with resources.

8.2 In 2021-22 snow wardens were strategically placed to try and spread salt on heavily pedestrianised areas during adverse weather conditions. This was aimed at covering places of interest such as local convenience stores, medical centres, post offices and places of worship.

8.3 Registered snow team volunteers are provided with snow shovels, high visibility vests and rock salt to spread on public roads and footpaths. Supplies will only be delivered once treatment of all **Priority 1** and **Priority 2** carriageway and **Priority 1F** and **2F** routes have been completed. through the Highways Delivery Unit.

If you are interested in becoming a snow warden please contact 01274 431000 and a member of the Highways Delivery Team will reply to your request.

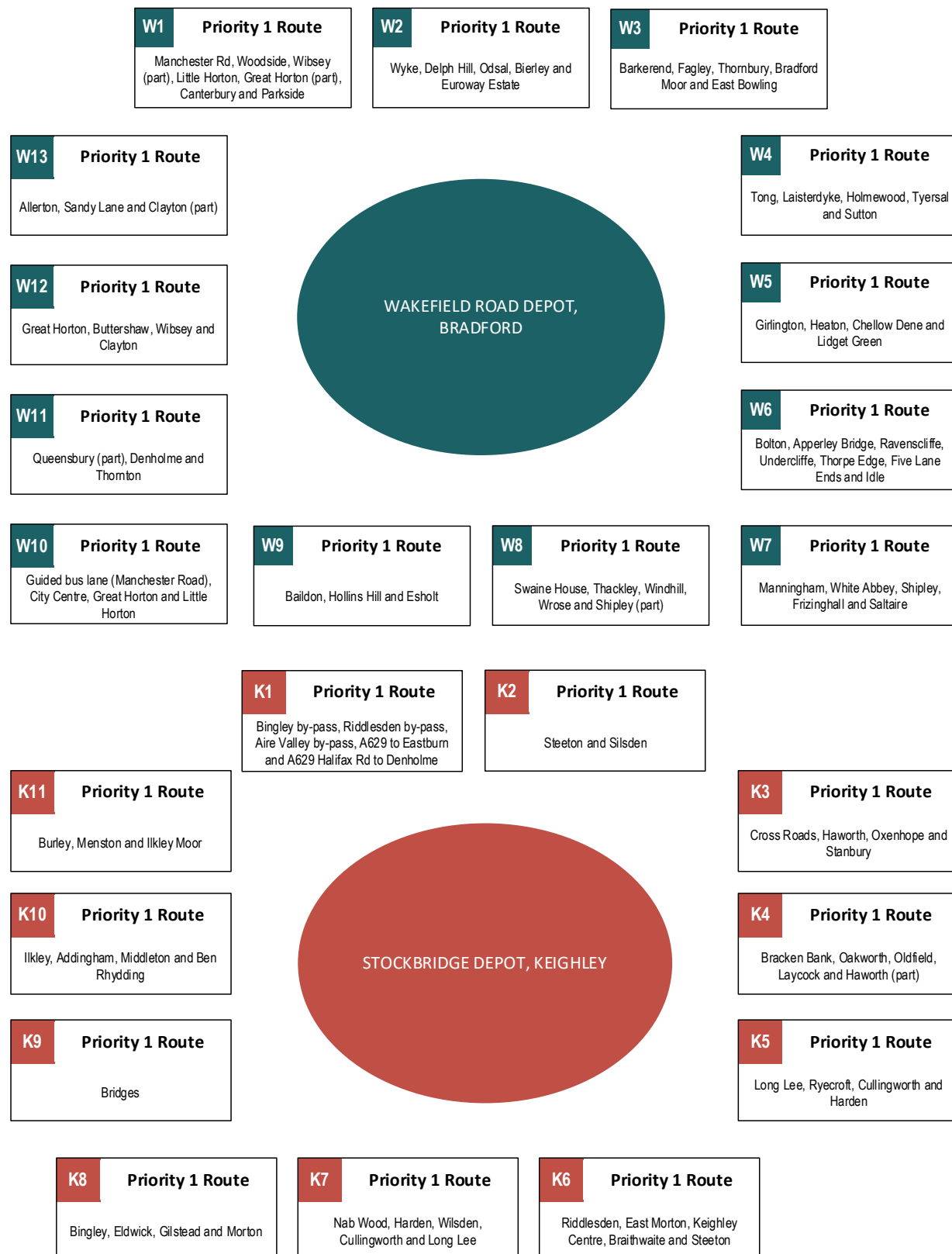


Appendices



Appendix 1

Gritting Tree – Operation of Depots and Routes



Appendix 2

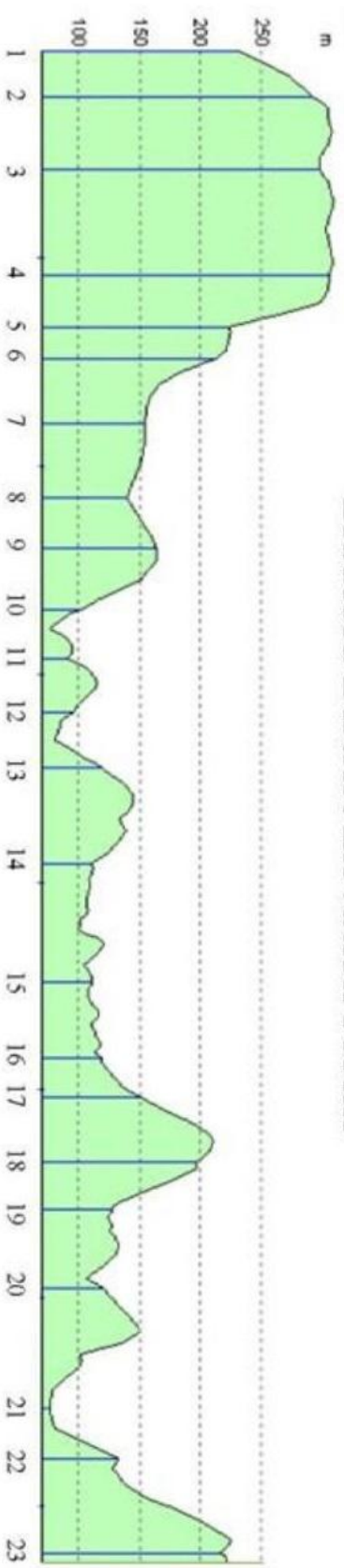
Altitude of Settlements in the City of Bradford MDC

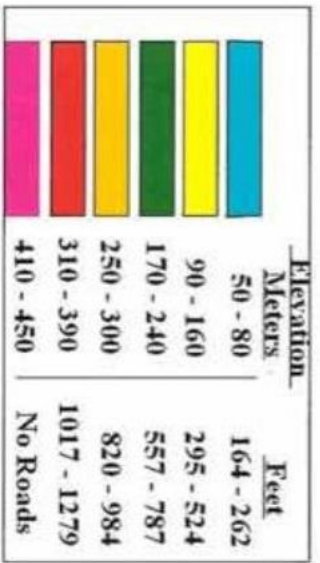
AREA / LOCATION	FEET ABOVE SEA LEVEL
Queensbury	1100
Buttershaw	867
Wibsey	810
Woodside	760
Odsal Top	696
Wyke	600
City Hall	325
St. Lukes	465
.R.I	623
Toller Lane - Roundabout	601
Thornton Road , Girlington	428
Allerton	750
Sandy Lane - Traffic Lights	706
Haworth Road Y.W.A Treatment Plant	815
Lingbob, Wilsden	736
Crossroads, Cullingworth	654
Mini-roundabout Harden	460
Shipley	250
Bradford Road , Branch	350
Emm Lane	651
Moorhead Lane , Saltaire	490 - 623
Main Street , Bingley	266
Haworth	750
Bus Terminus , Eldwick	703

AREA / LOCATION	FEET ABOVE SEA LEVEL
Village , Oxenhope	672
Stanbury	826
Lynfield Mount , Daisy Hill	776
Five Lane End	649
Wrose Road - Top	585
Eccleshill	690
Thackley Corner	426
Baildon Moor	800
Baildon Centre	525
Keighley	271
Oakworth	800
Denholme	984
Silsden	760
Thornbury	560
Dudley Hill	650
Ilkley Town Centre	311
Ilkley Moor	820

- | | |
|-------------------|--------------------|
| 1 Haworth | 14 Bingley |
| 2 Oxenhope | 15 Keighley Centre |
| 3 Denholme | 16 Steeton |
| 4 Queensbury | 17 Silsden |
| 5 Clayton | 18 Silsden Moor |
| 6 Halifax Road | 19 Addingham |
| 7 Odsal | 20 Ilkley |
| 8 Bfd City Centre | 21 Burley |
| 9 Undercliffe | 22 Menston |
| 10 Greengates | 23 Ilkley Moor |
| 11 Thackley | |
| 12 Shipley | |
| 13 Lower Baildon | |

Bradford District Elevation Profile





Appendix 3

Assessment Form for Provision of Grit Bins

LOCATION OF SALT BIN	DATE OF ASSESSMENT	ASSESSED BY	
CHARACTERISTIC	SEVERITY	POINTS	ASSESSED ACTUAL POINTS
1) Carriageway Gradient	Greater than 1 in 10	75	
	1 in 10 to 1 in 30	40	
	Less than 1 in 30	NIL	
2) Altitude	Land over 700ft	75	
	Land over 500ft	50	
	Land between 250-500ft	25	
3) Distance to next grit bin	Less than 200m	0	
	200m to 400m	15	
	More than 400m	20	
4) Close proximity to and falling towards and away from junctions	Heavily trafficked road	80	
	Moderately trafficked road	60	
	Lightly trafficked road	30	
	Not falling	NIL	
5) Number of premises for which this is the only access	Over 100	30	
	50-100	20	
	20-50	10	
	0-20	NIL	
6) High Traffic/Strategic General location and High pedestrian movements	School or community centres	25	
	Designated old persons accommodation	25	
	Clinics or doctor's surgeries	25	
7) Road Priority	On priority 1 Main Road Gritting Route	-50	
	On Priority 2 Side Road Gritting Route	-50	
To meet the threshold level of a grit bin the score achieved needs to be 125 (or greater)	TOTAL ASSESSMENT SCORE ACHIEVED		

