

HIGHWAY MAINTENANCE WINTER SERVICE OPERATIONAL PLAN

A Guide to Highway Policies
and Procedures

2022 - 2023



City of
BRADFORD
METROPOLITAN DISTRICT COUNCIL

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Introduction

This Winter Service Operational Plan describes the arrangements operated by 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 2018 – 19 season.

The contents of this plan have been fully updated based on the findings of the reviews into the 2017/18 Winter Service which were undertaken by Emergency Planning, Fleet & Transport Services and across stakeholder Council Departments.

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%. Also two main cycle routes cover 4 miles.

1.3 In general the Winter Service utilises in-house drivers to service its gritting fleet, the largest percentages of these come from the Highway Maintenance Section. Services including Parks & Landscape and Cleansing provide a smaller proportion of drivers for the service. Teams operate from four depots; Wakefield Road, Queensbury, Keighley and Ilkley.

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.

1.5 The geography and topography of the district makes the winter maintenance operation challenging, most notably because of the large number of settlements which are located about 500ft altitude. Local district centres range in altitude from Queensbury at over 1,100ft. above sea level to 325ft. above sea level at Bradford City Hall with locations such as Odsal Top (696ft.), Buttershaw (867ft.), Woodside (760ft.), Wyke (600ft.), Clayton (700ft.) in the south all being above the 500ft 'snow line' altitude. Whilst in the north of the district 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 reviewed the national response to severe and prolonged weather events. The key focus of the recommendations from the Quarmby review was to develop:

- Greater resilience in salt stocks - In periods of extreme weather the relevant authorities (Local Highway Authorities) are not constrained in their use of Rock Salt.
- Establishment of 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 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.

This Winter Service Plan has been fully updated to incorporate changes to the service response which deal with all these areas of improvement.

History of Gritting (2009-Present)

1.8 During the past eleven years' there have been three significant winter periods where conditions have merited significantly more intensive and frequent treatments of the network as illustrated in the table below. Winter 2017-18 presented the service particular challenges due to the intensity of snowfall over the months of January to March. The winter of 2020 – 2021 brought more challenges to the winter operation as the need to focus on ensuring that all the Covid 19 vaccination and testing centers remained open.

From the Evening on Boxing Day 2020 to mid February 2021 the gritting teams were treating the highway every day.

Year	Number of priority 1 network treatments	Total salt used (Tonnes)
2009 - 2010	106	21,000
2010 - 2011	85	13,300
2011 - 2012	73	12,500
2012 - 2013	117	22,000
2013 - 2014	45	6,300
2014 - 2015	68	14,800
2015 - 2016	36	7,700
2016 - 2017	40	6,900
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

1.9 The challenges of the 2017/18 season have 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

1.10 The Highways Act 1980 Sections 41 and 58 states that the Highway Authorities have a statutory duty to maintain the highway and must at all times take reasonable care to ensure that the highway is not dangerous.

1.11 Section 150 of the Highways Act 1980 also imposes a duty upon 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 FOOTWAYS

Carriageway Routes for Pre-Treatment

PRIORITY 1:

MAIN ROADS

2.1 The salting network identified for precautionary 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 plan the gritting operation will treat 24 routes over a total distance of 712



miles which is 62% of the highway network. Each 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. As most Priority 2 networks are located within the vicinity of a Priority 1 route an assessment of prevailing road surface conditions will be based upon the information provided by service gritter drivers upon their return to the depot. 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 the Priority 1 routes and should be treated within 1 hour of commencement of operations.

PRIORITY 4:

NIGHT PATROL OR ICE PATROL FUNCTION

2.7 From the start of the winter maintenance season the service has teams on Standby 24/7. When the temperature and/or weather forecast is marginal gritters will patrol the network on the high ground to respond to any sudden deterioration in the weather.

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

wherewater 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 time and also the winter operations manager.

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 section of the Council. These networks are predominantly located in the city and town centres and are treated using a 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 mobilise during periods of prolonged frost and snow events if necessary.

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 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 2 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, or Priority 1F networks has 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; and
- General members of the public.

Amendments of priority gritting routes during the life of the Winter Service Operational Plan

2.14 The Priority Gritting routes (including footway routes) contained within this year's Winter Service Operational Plan have been developed for the 2021/2022 season based on a 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 2021/2022 season will only be permitted under exceptional circumstances. All

such requests should be made via the Council's Customer Contact Centre on 01274 431000 as this will provide an audit trail of all such requests.

2.15 All amendment requests received during the winter season will be subject to a detailed risk assessment evaluation prior to consideration for inclusion within the Operational Plan. The Council does not guarantee that all such applications can or will be incorporated within the provision described within this plan. Whilst lengths of highway requested do not meet the requirements of the risk assessment evaluation they will not be considered for inclusion within this years' provision. Those which do meet the threshold may be incorporated within the current plan or be held for incorporation in the next plan iteration.

Response and Treatment Times for Carriageway Treatments

2.16 The Service plans and 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 winter service depots and the completion of the treatment of their route.

2.17 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**.



2.18 Treatment of Priority 2 carriageway routes should be commenced 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.

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

Response of Treatment Times for Footway Routes

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

2.21 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

2.22 The Priority 1 network covering 24 routes is serviced by:

NUMBER OF VEHICLES	TYPE OF VEHICLE
24	18 tonne Bulker (Fixed gritter body with body and plough)
2	Tractor / trailer / gritters with plough
2	7.5 tonne Multi-spreader
1	Tractor / Cycle Route chemical sprayer

2.23 All the above vehicles are fitted with GPS Tracking systems which include sensors to collect information related to spread rates and spread patterns of grit. Records from these units are reviewed daily by the Winter Service Manager and are retained throughout the winter period.

2.24 Priority 4 networks are patrolled by two 18 tonne Bulklers deployed from Stockbridge and Wakefield Road depots.



2.25 Priority 1F routes are gritted by 7 Kubota (small tractor) units with spreaders which are provided and operated by staff from the Parks and Landscape section.

2.26 Priority 4 networks are patrolled by two 17 tonne Bulklers deployed from Stockbridge and Wakefield Road depots.

2.27 Priority 1F routes are gritted by 9 Kubota (small tractor) units with spreaders which are provided and operated by staff from the Parks and Landscape section.

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:

NO. OF VEHICLES	TYPE OF VEHICLE / DRIVERS
6	Tractors with snow ploughs
4	Bob Cats Skid Steers
4	JCB's
7	Footway kubota / tractors
10	Gritter drivers
20	Operatives – hand gritting – snow clearance

Location and Maintenance of Grit Bins

2.29 Currently on the Bradford highway network there are in excess of 550 grit bins deployed which 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 maintain a computerised inventory of all grit bins which is in the form of a GIS map layer which is available via the Council's website or on the Priority 1 gritting route maps contained within this operational plan (see *Appendix 3*).

2.31 Deployment of grit bins is seen as essential to 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 by local residents / road users in periods of wintery conditions.

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. 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 asset register described in paragraph 2.30. 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). However, it should be noted that replenishment of bins will only take place once all Priority 1 and Priority 2 routes have been treated.

Applications for new grit bin locations

2.33 The Council will assess any application for new grit bin locations in line with the approved assessment criteria matrix which adopts a risk based approach to the assessment of locations. The use of this assessment matrix will ensure that only those locations where the greatest risk of danger to the public due to the present of snow and ice are prioritised for deployment of grit bins.

2.34 Where an application is received for a new grit bin an assessment of the location will be undertaken by Council officers throughout the winter season to ensure that the site meets the minimum criteria threshold. Where a site is not deemed to meet these criteria the application is removed from the list of potential sites and if contact information is provided at the time of application the applicant is informed of the Council's decision. There is no right of appeal against the outcome of this decision.

2.35 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 winter season; therefore any new sites will be established in the following

winter season, subject to appropriate budgetary provision.

Community grit bin scheme

2.36 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 £100 for deployment around their parish without relying on the Council to assess and deploy facilities in line with its own procedures. Grit bins which were 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 £50 per bin.

2.37 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 – these details are confirmed with the Highways Team. This particular scheme has been very successful

2.38 Arrangements for Town and Parish Councils in considering applications for new locations will vary depending upon the requirements of those bodies. 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 websites.

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 MeteoGroup and Vaisala Weather Bureau to provide weather information and forecasting to the authority on a daily basis 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 daily 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 2 dedicated weather stations located at Queensbury and Silsden which feed road surface temperatures to the Vaisala Weather Bureau. Weather information for MeteoGroup is also gathered from these 2 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 incorporate CCTV cameras to allow visual confirmation of data provided from these stations. The data available from these outstations can be presented in both graphic and tabular formats that include:

- a) **Road surface temperature**
- b) **Air temperature**
- c) **Wind and speed direction**
- d) **Precipitation**
- e) **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 MetOffice 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.

Information to be Provided

3.4 The information provided to make a decision on Winter Service Operations is provided by MeteoGroup in the form of a detailed weather forecast 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:

- a) **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.
- b) **Main lunchtime forecast** - available from 12:00hrs. This forecast contains a graphic 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.

c) 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.

d) Evening Update - this is a scheduled update forecast which is available from around 18:00 hours. This provides an update to the main lunchtime forecast and is generally valid for the next 36 hours.

3.5 The service, via the Emergency Planning Team also have access to frequent weather and severe weather warnings which are issued by the MetOffice.

Changes to the weather forecast

3.6 MeteoGroup carry out a 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

3.7 At the discretion of the Winter Service Officer a Night or Ice Patrol function will be carried out 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

3.8 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.

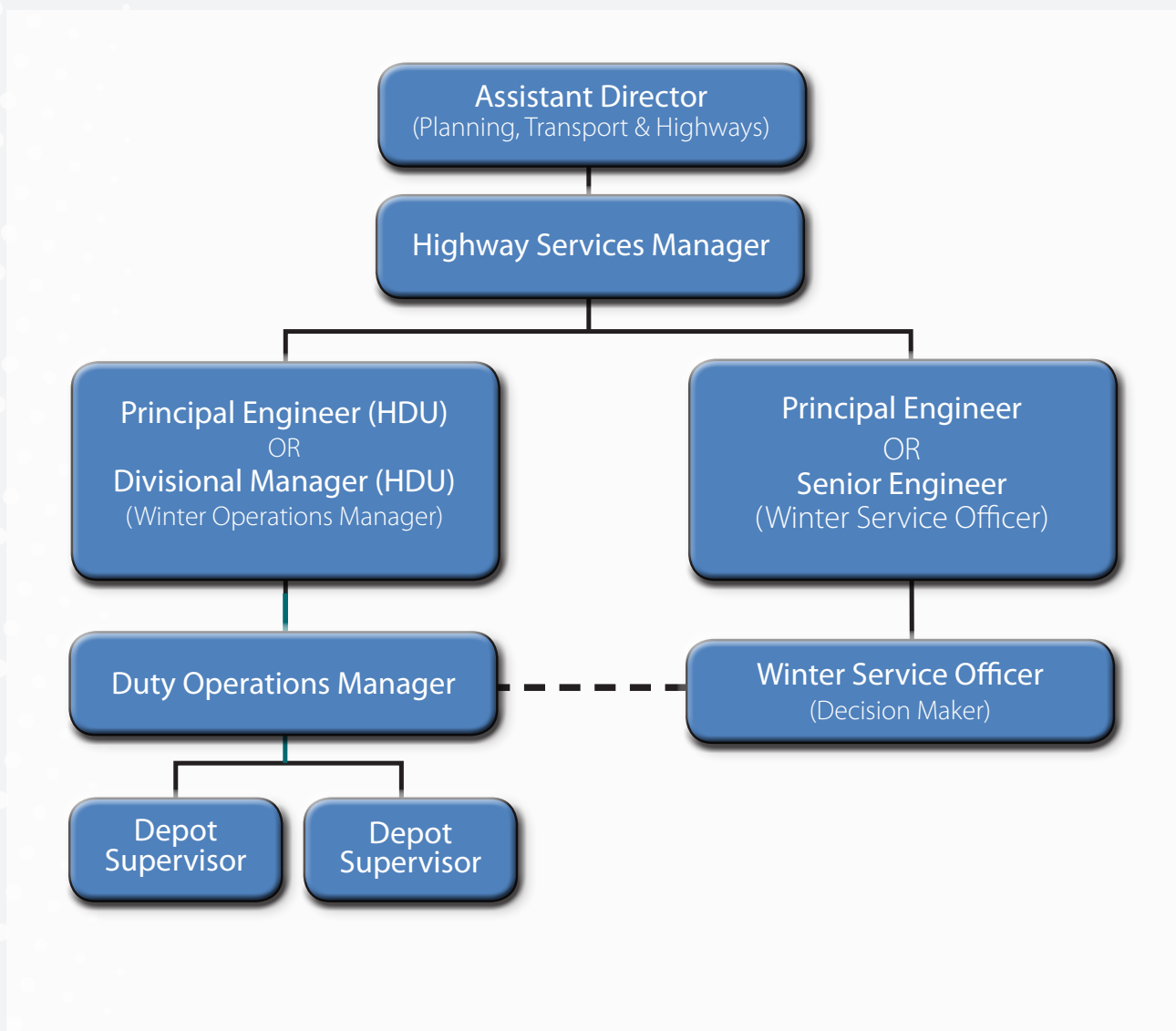
3.9 Whilst the formal Operational Response Plan is communicated following receipt of the 11.00hrs forecast a further review of this plan will be undertaken at 18.00hrs based on the forecast update by the MeteoGroup. Any changes in the action plan will be considered by the Winter Service Officer and if necessary communicated internally to Council departments and to the emergency services.

3.10 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. Treatment actions taken between these two operational periods will be co-ordinated 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

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



4.2 The **Highways Services Manager** in Planning, Transportation and Highways holds 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 also is responsible for confirming approval of any Emergency Exemption of drivers working hours in light of 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 in conjunction with the Depot Supervisors 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, including decision-making during out of hours and weekends or when the Winter Operations Manager is not available. 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 year's Winter Service Operational Plan introduces 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**

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.

4.7 This group meets collectively agree any modification to the Priority treatment routes and makes recommendations to the Council Local 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.

4.8 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 Local Silver Group prior to its implementation.

4.9 More detailed explanations of the roles of the winter maintenance operatives are included in the ‘*Winter Maintenance Good Practice Guide*’ published by NWSRG.

4.10 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

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

4.12 The **Winter Operations Officer** and **Winter Operations Manager** 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.

4.13 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.

4.14 Nominated **Depot Supervisors** will be allocated weekly rotas to ensure that depot sites are available for operations throughout the winter period. Depot Supervisors shall be on standby from 07.00hrs on Monday morning and terminating the following Monday at 07.00hrs.

Contact Details

Chris Eaton Assistant Director Planning, Transportation & Highways Service	01274 432483
Richard Gelder Highways Services Manager	01274 437603
David Dennison Principal Engineer (HDU) / Winter Operations Manager	01274 434199
Paul Naylor Divisional Manager / Duty Operations Manager	01274 431972
Andrew Whelan Principal Engineer (Highway Maintenance) / Decision Maker	01274 434409

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

5. STANDARD OPERATING PROCEDURES AND DECISION MAKING

5.1 Good communication between the Winter Service Officer and the Winter Operations Manager is crucial.

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 Operations Manager will be responsible for instructing the nominated Duty Officer / Depot Supervisor to arrange opening of the respective depot sites to facilitate the necessary action.

5.3 The Depot Supervisors 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 land-line 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 particularly 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.





Prolonged or Expected Longer Duration Winter Conditions – Decision Making Arrangements

5.6 Where conditions persist beyond 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 MeteoGroup 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 Councils 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). These stood-down drivers 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 will resolve the issue of compliance with driver hours requirements consideration will be given to the declaration of an Emergency exemption for the extended period of inclement conditions in line 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 (usually commencing at 18.30hrs) and be fully completed by 21.00hrs. 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 rota 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 Supervisors 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 Supervisors 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 actually driving on a public road. Off-road driving counts as duty-time.

Duty time

5.21 Duty time for all company drivers is defined as any working time. Self-employed drivers definition of duty time is only the 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 winter gritting policy 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 in order to set this policy 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 drivers limits (ten 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 serious damage to property as to necessitate the taking of immediate action to prevent the occurrence of such damage'

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 an emergency provision (e.g. gritting), the above test still applies.

5.26 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 this takes place 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.

5.27 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 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.

5.28 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.

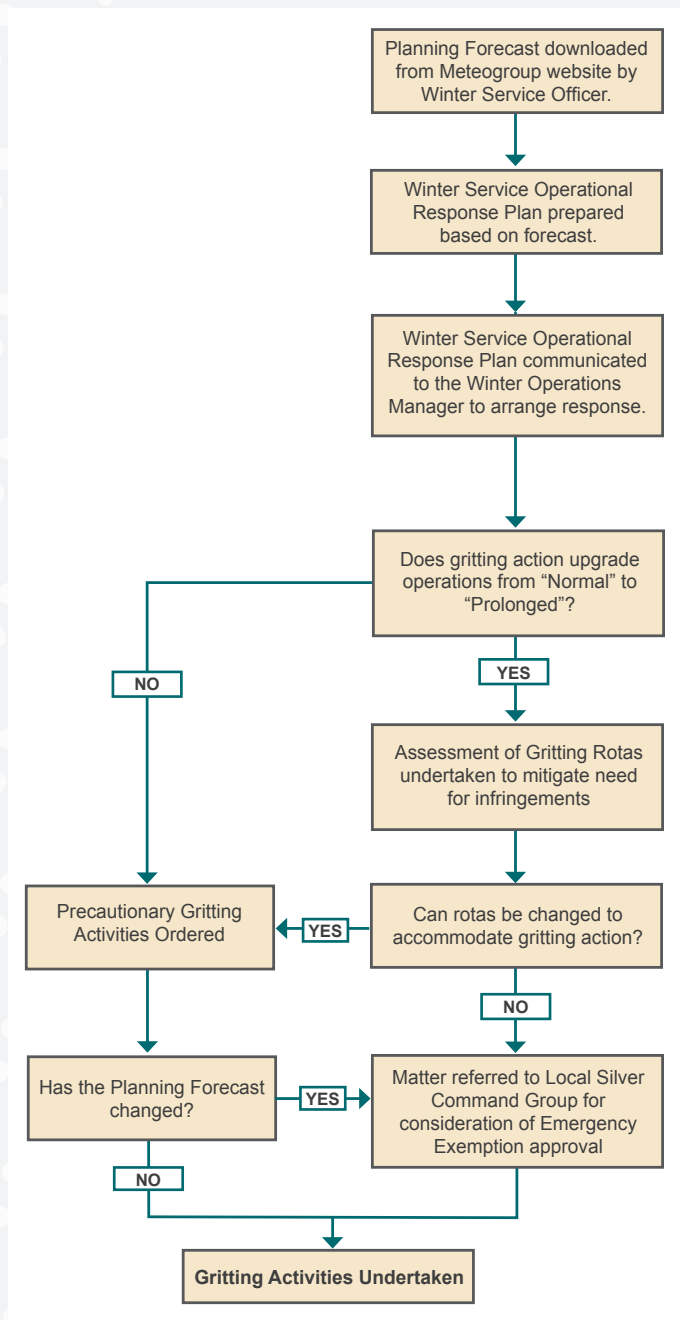
5.29 In all the above circumstances the decision to invoke the emergency provisions with this plan must be made by the Highways Services Manager in conjunction with the local Bronze Command group.

5.30 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.

5.31 All timesheets are audited on a weekly basis by the Technical Enforcement Co-ordinator, Fleet & Transport Services.

Procedure for approval of an Emergency Exemption

5.32 Where a situation giving rise to the necessity for an emergency exemptions arises the following procedure will be adopted:



5.33 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 situation has been given this will be communicated to the Fleet Compliance Manager.

Driver Training

5.34 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.

5.35 New gritter drivers will, in addition to attaining their HGV Class C driving license complete their Driver's CPC qualification as well as undertaking a programme of training to City & Guilds 6159 (Winter Operations) which covers such aspects as Health & Safety legislation, control measures and safe working methods and working practices appropriate to the winter service.

5.36 Existing Gritter Drivers will receive an annual programme of refresher training comprising:

- Dry runs of the Priority 1 treatment routes for route familiarisation purposes;
- Practical refresher on safe working practices including changing snow ploughs on wagons; and
- Tool box talks at the start of the season.

6. SALT STORAGE

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

LOCATION	MAX STOCK Tonnes	MIN STOCK Tonnes
Wakefield Road Depot	16,300	12,300
Queensbury Depot	600	100
Stockbridge Depot	7,300	2000
Ilkley Depot	600	100
TOTALS	24, 800	14,500



Resilience

6.2 The Council's Resilience level is determined as:

- Overall Winter Period 1st October to 30th April
- Core Winter Period 1st December to 28th February
- Days Resilience (Overall Winter Period) 15 Days
- Days Resilience (Core Winter Period) 20 Days

MINIMUM SALT STOCKS					
			MINIMUM STOCK		
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

6.4 On the basis of 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 24,800 is more than sufficient for an average winter and provides in excess of the recommended 12 day level of resilience.

6.5 Resilience within the country is managed through the Civil Contingencies Act 2004 and the Local Resilience Forums. These forums are Police Force area based, e.g. West Yorkshire.

6.6 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.

6.7 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 704 miles per treatment to 412 miles (Priority 3). Feeding into this group would be the local Service Silver 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 704 miles per treatment to 412 miles (Priority 3).

Mutual Aid

6.8 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.

6.9 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 five Local Authorities in West Yorkshire; Leeds, Calderdale, Kirklees and Wakefield are represented on this group. Salt Cell monitors and communicates with the Winter Operations Manager weekly during the winter season.

6.10 The DFT also maintain 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.

7. OPERATIONAL COMMUNICATIONS

7.1 Daily Winter service operations will be posted on the City of Bradford Metropolitan District Council Web Site and communicated via social media outlets.

7.2 During the Winter Season the daily Operational Response Plan of action 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 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 tele- and video-conferencing facilities (Skype) 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 up-dated and contain information about the service. All the routes treated, are now identified on plans for all The Carriageways and Footways across the Highway

Network. 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. Form requests are managed by our Customer Services Section who will forward on request to the operations team on a daily basis.

7.6 Recently with the launch of the BradfordApp additional functionality has been included to allow residents to request services via Smart phones and other internet connected devices.

7.7 Social media has developed into an important communication method and we use Twitter to give out operational information. We currently have more than 5,000 followers on our Twitter account that can pick up our winter messages and re-Tweet.

www.bradford.gov.uk/winter

 @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 numbers 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 pedestrianized 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

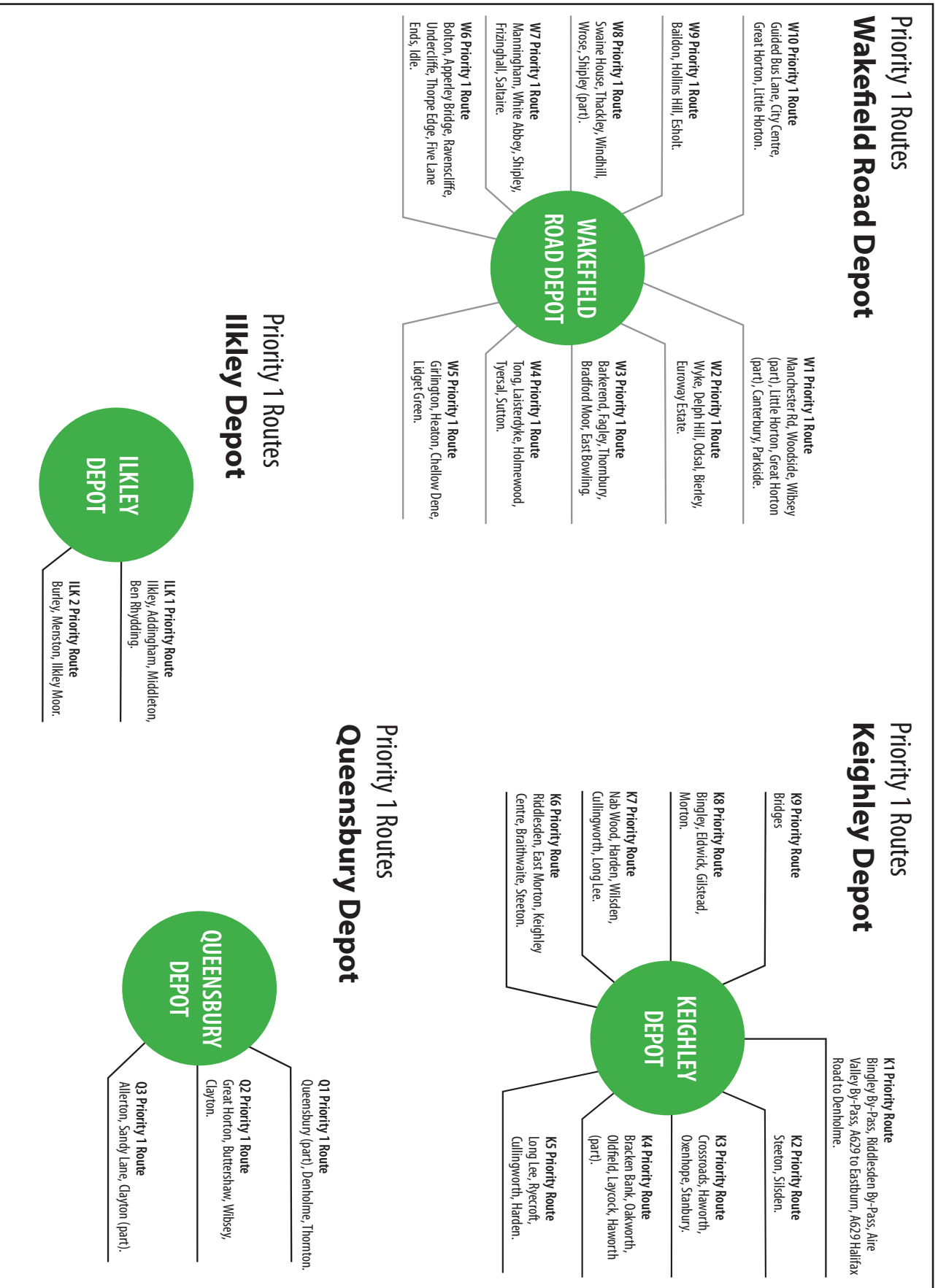
footpaths. supplies will only be delivered once treatment of all Priority 1 and 2 carriageway and Priority 1F and 2F routes have been completed. through the Highways Delivery Unit.

8.4 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



Gritting Tree - Operation of Depots and Routes



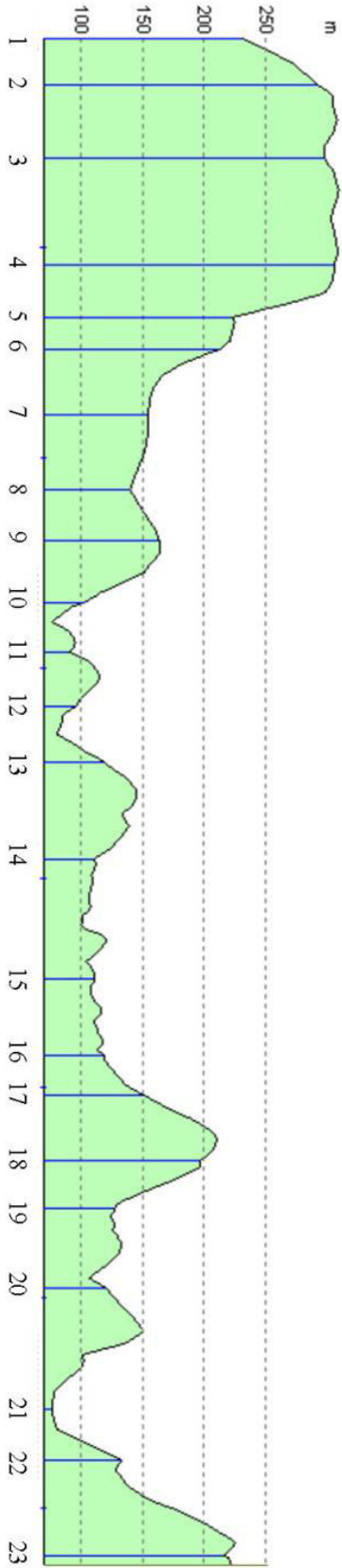
Appendix 2

Altitude of Settlements in the City of Bradford MDC

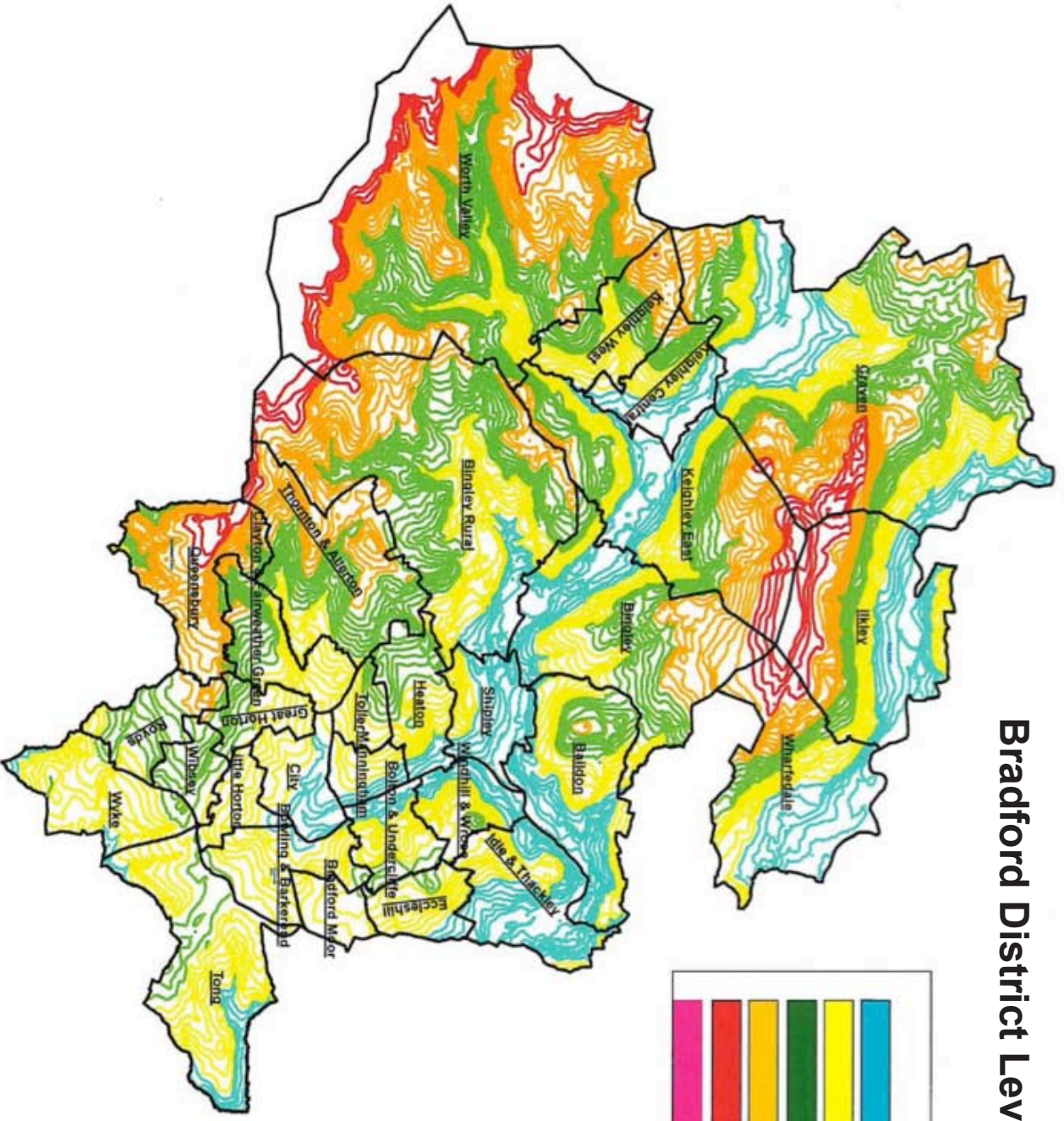
AREA / LOCATION	FEET ABOVE SEA LEVEL
Queensbury	1100
Buttershaw	867
Wibsey	810
Woodside	760
Odsal Top	696
Wyke	600
City Hall	325
St. Lukes	465
B.R.I	623
Toller Lane - Roundabout	601
Thornton Road , Girdlington	428
Allerton	750
Sandy Lane - Traffic Lights	706
Haworth Road Y.W.A Treatment Plant	815
Lingbob, 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
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
- 2 Oxenhope
- 3 Denholme
- 4 Queensbury
- 5 Clayton
- 6 Halfax Road
- 7 Odsal
- 8 Bfd City Centre
- 9 Undercliffe
- 10 Greengates
- 11 Thackley
- 12 Shipley
- 13 Lower Baildon
- 14 Bingley
- 15 Keighley Centre
- 16 Steeton
- 17 Silsden
- 18 Silsden Moor
- 19 Addingham
- 20 Ilkley
- 21 Burley
- 22 Menston
- 23 Ilkley Moor

Bradford District Elevation Profile



Bradford District Levels



Elevation	
Meters	Feet
50 - 80	164 - 262
90 - 160	295 - 524
170 - 240	557 - 787
250 - 300	820 - 984
310 - 390	1017 - 1279
410 - 450	No Roads

Appendix 3

Assessment Form for Provision of Grit Bins

LOCATION OF SALT BIN	DATE OF ASSESSMENT	ASSESSED BY	
CHARACTERISTIC	SEVERITY	POINT	ASSESSED ACTUAL POINT
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 doctors surgeries	25	
7) Road Priority	On priority 1 Main Road Gritting Route	-50	
	On Priority 2 Side Road Gritting Route	-50	
		TOTAL	This needs to be over 125 to pass



City of
BRADFORD
METROPOLITAN DISTRICT COUNCIL