





Portsmouth Public Highway PFI



Winter Maintenance
Operational Plan
2015-16

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Document Control

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Section 1 – Scope

1.1 Introduction

This winter service plan describes the policy, objectives, procedures and operational arrangements for the delivery of winter service on the Portsmouth City Council (PCC) public highway network. Ensign as the Contractor & Colas as the Sub-Contractor have prepared this document as the annual Winter Service Plan for the 2015-2016 winter season.

The document serves a number of specific purposes:

Policy Document

The winter service plan sets out Ensign's policy and objectives in the context of local service delivery.

Contract Document

The winter service plan outlines the key contractual responsibilities of Ensign and their service provider, Colas.

Quality Plan

This winter service plan forms part of Colas' quality management system.

Contingency Plan

The winter service plan forms part of the Service Company's wider contingency arrangements.

Operations Manual

The winter service plan describes the processes, procedures and operational arrangements for those responsible for delivering winter services.

Reference Document

The winter service plan is a comprehensive reference document.

1.2 Requirement to produce a plan

- 1.2.1 The plan is produced in accordance with the requirement of the PFI Contract Performance Standard 3: Winter Service Operations. These requirements are in line with the Highways Act 1980 Amendment Clause 41 (1A), these place a duty on Highway Authorities to ensure so far as reasonably practical, that safe passage along a highway is not endangered by snow and ice.
- 1.2.2 This plan is in support of the national arrangements introduced following the implementation of the Civil Contingencies Act 2004, Regulations 2005. The supporting guidance and regulations to the Act set out clear expectations and responsibilities for Category One responders at the local level to ensure that they are prepared to deal effectively with the full range of emergencies from localised Major Emergencies through to Catastrophic Events.

1.2.3 Part 1 of the Civil Contingencies Act 2004 establishes a consistent level of civil protection activity across the United Kingdom. Category One Responders include the Emergency Services, Local Authorities and other agencies.

1.3 Objectives

The objectives of this plan are:

- To provide a framework for the Colas Winter Maintenance Service Manager to manage routine winter maintenance.
- To detail those responsible for the operation and management of routine or specific weather emergencies.
- To provide a framework for the Contract to manage the Highway Services' response to a severe weather emergency as part of a multi-agency response.
- To detail those responsible for the operation and management of the Highways' response to a severe weather emergency as part of a multiagency response.
- To identify plan activation triggers and the action to be taken.

1.4 Policy Framework (Statement of Service)

Policy: It is PCC's and Colas' aim to ensure, so far as is reasonably practicable, that safe passage along the highway is not endangered by snow or ice.

Colas will implement PCC's policy in an efficient and safe manner and will endeavour, in so doing, to minimise delays to road users.

1.5 Contractual arrangements

Role of PCC: The City Council is responsible for following:

- 1) Setting the overall policy on the provision of winter services
- 2) PCC to contact other internal services annually for updates on schools, residential homes etc. for WMOP
- 3) Receiving notification of proposed actions or changes to proposed actions
- 4) Overseeing operation management and performance
- 5) Agreeing the escalation mechanism and cessation of other PFI activities to deploy resources towards winter maintenance (details of mechanism can be found in section 2.3.1 and Appendix C)
- 6) High-level liaison with the media
- 7) High-level liaison with elected representatives

- 8) Setting up of the Snow response Room to coordinate clearances across the city
- 9) Through the Snow Response Room PCC to communicate internally and externally on bus routes affected, school closures & road closures
- Presentation to external stakeholders prior to winter season on Winter Maintenance Plan and any changes

Role of Ensign/Colas: Colas are responsible for following:

- 1) Development of the winter maintenance operational plan for Public Highway
- 2) Implementation, execution and delivery of the winter maintenance plan.
- 3) Design of winter service treatment routes
- 4) Procurement of weather forecasting services
- 5) Provision of ice prediction sensor stations
- 6) Day to day decision-making and operational management
- 7) Reporting to PCC
- 8) Provision of winter service compounds
- 9) Provision of winter service vehicles, plant, labour and materials for Public Highway
- 10) Maintenance and operation of vehicles, compounds and equipment
- 11) Day to day liaison with the media in co-ordination with PCC
- 12) Monitoring and reviewing performance

1.6 Network

1.6.1 Description and extent of Network

Colas are responsible for all adopted public highways network as described in the PFI contract. The Section 8 agreement with Hampshire County Council (HCC) is now signed and in place for cross boundary works.

1.6.2 Local Problem Areas

The following areas have been identified as areas of risk, and will be salted whenever a Priority one salt run has been ordered.

Road	Extent	Reason
Christchurch Gardens	Carriageway	Gradient
Oakhurst Gardens	Carriageway	Gradient
Hilltop Crescent	Carriageway	Gradient
Beverly Grove	Carriageway	Gradient
Old Rectory Road	Carriageway	Gradient
Mulberry Lane	Carriageway	Gradient
Park Lane	Carriageway	Gradient
Norway Road	Bridge/Carriageway	Gradient on bridge

Road	Extent	Reason
Copnor Road	Bridge/Carriageway	Gradient on bridge
St. Mary's Road	Bridge/Carriageway	Gradient on bridge
Burrfields Road	Bridge/Carriageway	Gradient on bridge
Isambard Brunel Road	Footway under Railway Bridge	Footway leading to Civic Offices
Southampton Road	Rail Bridge	Gradient on bridge
Eastern Road	Rail Bridge/Carriageway	Gradient on bridge
Eastern Road	Water Bridge/Carriageway	Gradient on bridge
Fratton Road	Rail Bridge/Carriageway	Gradient on bridge
Somers Road	Rail Bridge/Carriageway	Gradient on bridge
Holbrook Road	Rail Bridge/Carriageway	Gradient on bridge
Northern Road	Rail Bridge/Carriageway	Gradient on bridge
Walton Road	Rail Bridge/Carriageway	Gradient on bridge
Portsdown Hill Road	The George Flyover Carriageway	Gradient

1.7 Plan Maintenance

The Contracts Manager (Winter Maintenance Service Manager (WMSM)) in charge of the winter operations is responsible for maintaining this Operational Plan. The plan is updated on a yearly basis taking into consideration the events of the previous season.

Section 2 - Operations

2.1 Introduction (Operations)

The Service Company is responsible for making decisions concerning salting and snow clearance on the network during the winter maintenance period (from 1st October to 30th April). Detailed operational procedures have been developed for the delivery of winter services in the PCC area, including arrangements for liaison and co-operation with adjacent providers and reporting to the client.

The WMSM (Contract Manager for Operations) will control and is responsible for the operation of the winter maintenance service. During any periods of absence / annual leave etc. another Contract Manager will take his function and be responsible for the operation of this Plan.

In order to achieve a co-ordinated service across all boundaries liaison on salting routes has been undertaken with neighbouring maintenance authorities. The routes are defined in **Appendix D3.**

All designated site staff involved in Winter Service duties will receive instructions and training to ensure effective operation. Training would include; an appreciation of winter weather forecasting, effective decision-making, and operational procedures as appropriate to their duties.

2.2 General Arrangements and Decision Making

2.2.1 Decision Making and Instructions

The WMSM maintains a roster of senior staff that performs the duties of the Winter Maintenance Duty Officer (WMDO) throughout the winter season. The duty WMDO will be available 24/7 throughout their period of duty. During a snow or flood event two Duty Officers will be on call, one on the snow/flood desk and one on all other out of hour's issues.

The WMDO maintains computer contact with the Finley Irvine Ice Station Alert System, either from the office or through a laptop. Weather forecasts for a specific local site will be provided by the Met Office, supported by real time local information obtained from sensor sites, as below:

Morning summary and preliminary forecast	by 0800h
24-hour area forecast	by 1330h
Sensor site forecast (text & ice prediction graphs)	by 1330h
2 – 5 day forecast	by 1330h
Evening update forecast	by 1800h

The graphical computer information of existing road surface conditions at the sensor sites together with predictive and forecast information will enable the WMDO to form a decision on appropriate action throughout their period of duty. This action may be for stand-by, precautionary salting, repeat salting or

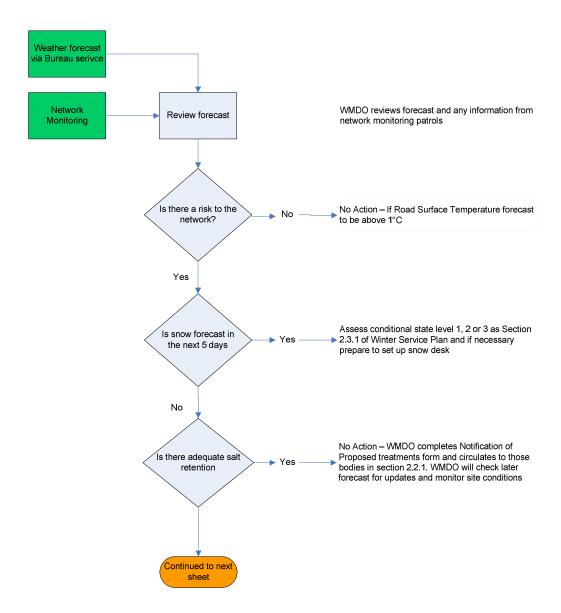
snow clearance. Confidence levels for forecasts will influence the timing of the decision.

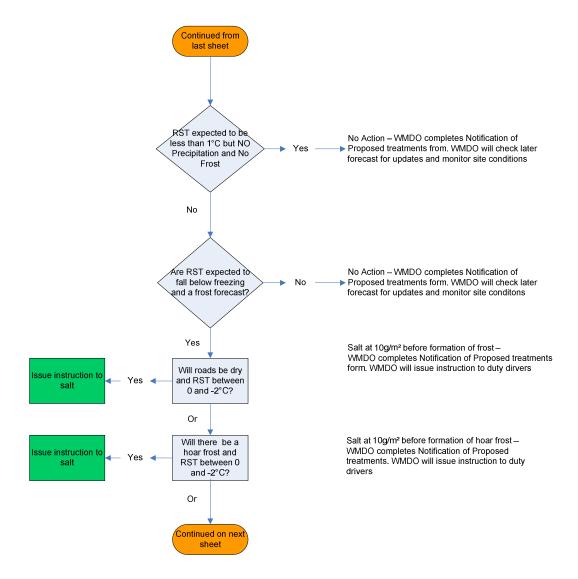
The WMDO will notify the operational staff by 16:00 hrs of any action required. If a decision has not been reached, it shall be delayed until 19.00hrs or other such time as circumstances dictate, when updated forecast information from the Met Office is available. The decision will specify the routes to be treated, timing of treatment or stand-by, spreading rates, ploughing requirements, etc.

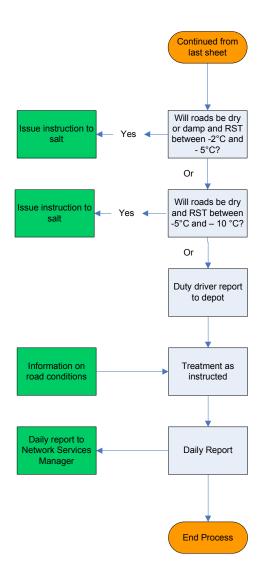
The WMDO will avoid treatment being undertaken in periods of peak traffic flow, if practicable, and during rainfall except where freezing rain is expected. The WMDO will also take into account current advice for low humidity conditions and the guidance given to increase the rate of spread/timing for Porous asphalt.

In the event of revised forecasts or unexpected conditions the WMDO may vary or change any previous decision at any time in the interests of the well-being of the Network. Updates/ changes of decision and any actions shall be notified by the WMDO to WMSM who will in turn notify if required PCC, emergency services, adjacent authorities and any party with legitimate need of such information.

2.2.2 Decision process







Salt at 15g/m² before formation of hoar frost – WMDO completes Notification of Proposed treatmentsform. WMDO will issue instruction to duty drivers

Salt at 20g/m² before formation of hoar frost – WMDO completes Notification of Proposed treatmentsform. WMDO will issue instruction to duty drivers

Drivers report to depot one hour prior to time of commencement of the designated action in order to prepare their vehicles, load salt, and collect their route cards.

Upon completion of their run each driver will inform the WMDO that the run is complete and update him on the road conditions.

WMDO will provide a daily operational report to the Network Services manager, detailing the treatments carried out over the last 24 hours.

2.2.3 Decision matrix guide (see Appendix C)

2.2.4 Special considerations

Hard packed snow

The treatment of hard packed snow/ice using salt alone can result in an uneven and slippery surface and therefore, in such circumstances, the addition of abrasives (5mm or 6mm sharp sand) will be considered.

Traffic calmed areas

With the exception of road marking techniques to influence traffic speeds all the features are likely to involve some level of conflict with winter maintenance operation. Traffic calming features will be indicated on the gritting routes and one or more of the following actions may be specified:

- Lift snowploughs and plough snow around the traffic calming features;
- Apply heavy salting locally this is to be carried [by traffic] onto the feature; and/or
- Adjust the spread rates or spinners to minimize overspreading

2.3 Escalation

During falls of snow or exceptional weather conditions responsibility for managing events will normally pass from the WMDO to a dedicated team and a Snow Desk will be established as detailed below.

PCC will be consulted in advance of establishing a Snow Desk to liaise the communications of the snow desk to their wider internal departments.

Emergency Service Plan arrangements will only be enacted if, after discussions with PCC, the Snow Desk response is considered insufficient to cope with the exceptional weather conditions or if an incident is compounded by a series of further incidents.

In the event that the DfT launch the Salt Cell, Colas will adapt the length of the network treated according to the guidance issued by the Salt Cell and according to salt supply. In this situation the WMSM will consult PCC before implementing any treatment decisions and will inform them twice a day, in the morning and in the afternoon of any developments.

2.3.1 Establishment of Snow Desk and escalation process

During periods where snowfall or severe weather is forecast, three conditional states will be recognised, Level 1, Level 2 & Level 3 as below.

Level 1

During marginal weather conditions, following the 5-day weather forecast, the WMDO will monitor the local weather and road surface conditions. He will liaise with the WMSM and report any local variations to the forecast state.

Level 2

During periods where severe weather is forecast, where snowfall is predicted, a "snow desk" will be setup and co-ordinated up by the WMDO and WMSM. A team from the Service Company will be established to operate the Snow Desk and they will continue to monitor local conditions and report back to the WMSM.

Colas and PCC will discuss the degree of severity and the level of resources that need to be diverted to snow clearance duty. 3 stages are forecasted. It is understood that the trigger of each of these stages will generate a relief event for underachievement of performance standard on the associated activities:

Stage 1

Activities suspended:

Highways Maintenance Landscaping Activities Gully Cleansing Road Lining Street Cleansing (block sweep)

Stage 2

Activities suspended over and above Stage 1:

Capital Works (schemes) Street Cleansing (gold zones, heritage areas & dog bins) Traffic Management

Stage 3

Activities suspended over and above Stage 1 & 2:

All other services with the total workforce dedicated to winter maintenance operations

Level 3

During extended periods of severe weather, the "snow desk" will liaise with PCC, Service Company senior management, and Emergency Services to manage the situation. The Snow Desk will act, as a single point of contact and all instructions will be passed through the Snow Desk.

Once the decision has been made to set up the Snow Desk, a dedicated room at the Service Company's office will be used. This room will contain all the necessary equipment to effectively communicate with the gritting/snow clearance fleet, PCC, Police, adjacent Local Authorities and other parties. Once the decision to initiate the Snow Desk has been taken, all communications equipment will be tested and if necessary equipment will be drawn from store.

The PCC Snow Response Room will coordinate all clearance works across the city, liaising with Colas and other Internal Services for a joined up approach. This will also include the coordination of PCC volunteers to assist with footway clearances, some of whom are unable to carry out their day to day duties due to the weather conditions. In addition to this, the Snow Response Room will collate and distribute information internally and externally on items such as bus routes affected, schools closures and road closures.

Once the decision to initiate the snow desk has been taken the WMDO will produce a shift pattern based on the available personnel and forward this to the WMSM/PCC.

The WMSM will arrange for a change in shifts where it is predicted that the snow event will span more than 12 hours, allowing for a half hour handover period. Where necessary, personnel required to take part in shift arrangements will be housed in local hotels for the duration of the emergency.

The shifts will be organised to include 2 decision makers, 1 "Technical Assistant", responsible for keeping the Winter Service Log, and 1 "Information Officer". One of the decision makers will take a lead role and in the event of implementation of the Contingency Plan, the role of "Silver".

During shift changes each member of the team will handover to their direct replacement. The team leader from the previous shift will remain for a period not less than half an hour after the official handover.

In addition to the staff at the snow desk location the WMSM will, if considered necessary, arrange to place staff at the PCC Offices for the purposes of information collection and liaison.

2.3.2 Activation of PCC Emergency Plan

PCC Emergency Plan will be activated at PCC request when it becomes apparent that a major or critical incident has occurred or is likely to take place. The actions outlined in the plan shall immediately put in place.

Section 3 – Treatments

3.1 Carriageway Treatment

3.1.1 All carriageways forming part of the public highway network have been allocated to one of the three groupings according to the following criteria;

Priority One

- main traffic routes ("A" class roads and M275 motorway)
- main access routes to important industrial and large educational establishments (500+ pupils)
- main access routes to major accident and emergency hospitals, and to important emergency service locations
- roads used as major bus routes (50 per day urban, 25 per day rural)
- roads passing through major shopping centres
- other routes busy during peak traffic periods

To be treated, as routine pre-salting, in advance of any forecast frost, ice, or snow.

After 3 days of treatments, if no rain/snow has fallen no further treatment should be undertaken unless conditions deem it necessary (WMSM decision).

Priority Two

- roads near to other schools
- roads used as other bus routes.
- roads to other hospitals
- roads to minor fire and ambulance establishments
- roads passing through other shopping centres
- roads with gradients that make driving hazardous
- hollow spots.
- footways over prominent Bridges

To be treated only when there is prolonged and persistent frost, ice or snow which is expected to continue, or following snow, but only once Priority 1 routes have been cleared.

Priority Three

other adopted public highways not covered by the above

Priority 3 roads will not be treated. However, in the case of heavy snowfall, once priority 1 and 2 roads have been cleared, we will endeavour to manually or mechanically clear lower-priority roads. In exceptional weather, salt may well be rationed by the government, as it was in January 2010 and they may also reduce the numbers of roads to be salted.

"treated" = either manually or mechanically depending on resources

3.1.2 Spot Salting

Spot Salting is a non-routine activity carried out after the completion of Priority 1 salting. Spot Salting is undertaken on a priority basis at locations where there have been reported problems (from the Emergency services or others), or there is knowledge of specific problems of ice formation on the network. Spot Salting will not be undertaken when it is unlikely to be completed before the ice begins to melt, as road temperatures rise. Spot Salting can be undertaken either by mechanical spreader or by hand.

The process for ordering spot salting is included in **Appendix C.**

3.1.3 Extent of Carriageway to be Salted

- The full width of the running carriageway shall be treated at the specified rate of spread indicated on the agreed action treatment.
- Each carriageway of a dual-carriageway shall be treated individually.
- All slip roads at grade-separated junctions shall be treated individually.
- The full length of the carriageway at roundabouts and gyratory systems shall be treated.
- Isolated obstructions in the centre of a single carriageway road which exceed 5m in length shall be treated on both sides.
- Treatments will only extend to the City boundary except where agreed in the Section 8 cross boundary agreement with HCC

3.2 Footway Treatment

3.2.1 All footways and cycle ways shall be allocated to one of the three groupings according to the following criteria;

Priority One

All footways & cycle ways designated as Gold zones, Bridges & Hollow spots, and the Guildhall Square (Appendix D), Transport Hubs (Appendix E2), PCC managed residential homes (Appendix E3), as identified, to be treated only when there is prolonged and persistent frost, ice or snow is expected to continue, or following snow.

The list of footways/cycle ways will be reviewed/updated on an annual basis.

Priority Two

All footways & cycle ways designated as shopping areas, Schools access (Appendix E) & Hill Slopes designated as to be treated following significant snowfall but only once Priority 1 footways and cycle ways have been cleared.

Priority Three

Other footways & cycle ways to be cleared either manually or mechanically following significant snowfall but only once Priority 1 and Priority 2 footways and cycle ways have been cleared. This will include a list of all school crossing patrol sites within the city (Appendix E1). Please refer to note 3.1.4

3.2.2 Extent of Footway/Cycleway to be salted

The full width of the footway or running width of cycleway meeting the above criteria shall be treated.

3.2.3 Resources for Footway treatment

It is not possible to predict the level of resources required, at any one time, to ensure that the footways described above are clear of snow and ice. It is also very difficult to predict the level of resources effectively available at the time. However the escalation process described in paragraph 2.3.1 and recent historical events indicate a total number of operatives in excess of 200.

3.3 De-Icing Treatment

3.3.1 General considerations

De-icing will be achieved by the application of 6mm dry rock salt at the rates defined in the Treatment Matrix Guide in Section 2.2.2 and Annexe C.

When necessary sharp sand will be added and pre mixed with the 6mm rock salt before being loaded in the gritters.

3.3.2 Thin Surfacing

Many of the modern surfacing materials (TWC) have a 'negative texture' with a considerable number of voids in the finished surface. During the application of salt, a brine solution is often trapped in the voids and is drawn onto the surface by the action of tyres. On medium and lightly trafficked roads, however, the brine solution might be retained in the negative texture.

Experience indicates that TWC does not benefit from an increase in spread rate but that the effect of residual salt on the carriageway is reduced, particularly in areas of low traffic. Residual salt should not therefore be relied upon to provide protection.

The spread rate for TWC should remain as for HRA but less reliance should be placed upon residual protection provided by the previous treatment and the aim should also be to apply treatment as close, as is practicable, to the forecast time of freezing.

3.3.3 Low Humidity

The current practice for winter maintenance is based on the application of dry Sodium Chloride (NaCl) in the form of naturally occurring rock salt. In low humidity conditions the level of moisture is critical in the salt being effective. This is because dry rock salt has no direct melting action; melting occurs only after the salt forms a solution by absorbing moisture from the atmosphere or the road surface.

Below a relative humidity level of about 80%, the absorption of moisture by rock salt decreases rapidly and, at low levels of humidity, salt particles remain inert and ineffective. Dampening the salt with a wetting agent prior to spreading can accelerate the process of dissolving salt particles.

Low humidity and low temperature conditions are most likely to occur in December and January, although these conditions can occur throughout the normal winter maintenance season. The WMDO must be aware that the conditions occur and that they appear to be doing so more frequently.

Monitoring the condition of the network should be carried out to confirm that the treatment has been effective. If it has not been fully successful, contingency treatments should be considered to restore the network to a satisfactory condition. It should be noted that weather sensor systems require the presence of moisture to determine the concentration of residual salt on the road sensor.

3.4 Salt Bins

Some parts of the network not included in precautionary treatments could be especially vulnerable to icing. This is especially the case in the wards of Paulsgrove, Cosham, Drayton and Farlington where most of the roads present an important longitudinal gradient. Salt bins are being maintained at key locations to allow road users to spread ground rock salt in the local area on an as needs basis. It is to be noted that these bins should not be used by residents to salt private premises.

The total number of bins on the public highway 2015-2016 season is 80. Their location is shown in the **Appendix D**. Requests for additional salt bins on the highway will be reviewed by PCC on a case by case basis.

Salt bins are cleaned and filled as a routine at the start of the season and before 1st November each year and will be refilled following extreme weather conditions. A dedicated cleansing operative will carry out a fortnightly inspection and the check sheet will be sent to PCC on a fortnightly basis. Please note that salt will be allocated in priority to CW treatment then FW treatment as per described in section 3.1 and 3.2.

3.5 Snow Clearance

3.5.1 Ploughing & Clearance Techniques and Operational Considerations

In moderate and heavy snowfall conditions it will be agreed with PCC to cease all normal highways work and re-direct all available resources to snow clearance.

Snow clearing routes are based upon a 40gm/m² application rate for the clearance of snow. This will normally be applied by way of two separate 20gm/m² runs. Precautionary treatment in advance of any snowfall will be at 20gm/m².

Snowfall less than 50mm deep will normally be cleared by the application salt at a rate of 40gm/m². This may take several successive applications.

Snowfall greater than 50mm will normally require ploughing, supplemented by the application salt at a rate of 40gm/m². The use of ploughs will be restricted

to roads wide enough to allow their passage without risk due to the high levels of "on-street" parking and narrowness of side roads, combined with the need for traffic to be as free flowing as possible. All winter maintenance plant will, however, be equipped to carry ploughs.

While moderate or heavy snow is still falling only priority one roads will be ploughed and treated in order to concentrate resources and ensure the most important roads are kept open and maintained in a safe condition.

When snow has stopped falling or the priority one roads are considered safe, priority two roads will be ploughed and treated followed by priority three roads as resources and conditions permit.

The frequency of ploughing and the continuation of snow clearance operations will depend upon conditions and resources will be deployed according to the escalation process described in section 2.3.1.

The removal of snow from dual carriageways requires a different technique from two-way carriageways. In heavy snowfall the priority on a dual carriageway will be to maintain a single open lane. In most cases this will be the most heavily used inside lane and the first operation will be to plough from lane 1 to the verge. The clearance of other lanes will occur as conditions improve. The outside lane will normally be ploughed to the central reservation although it is essential to regulate the speed to avoid throwing snow onto the opposite carriageway. If the central reservation is not wide enough to accommodate the snow or the dual carriageway has three lanes then echelon ploughing (2 or more vehicles, moving in the same direction, one behind the other, in different lanes) will be used to move the snow to the nearside.

Where snow compaction has occurred and ice has formed it may be necessary to use salt/grit mixtures to break up the compacted snow and provide additional adhesion.

In extreme conditions after heavy snowfall it may be necessary to lift snow from streets. Snow will only be removed this way in exceptional circumstances, for example where existing piled snow is preventing further snow clearance from the road.

Snow dumps will be created as necessary at the following sites:-

Road	Location	
Milton Common	Eastern Road	
Western Road	King George V Playing Fields	
Long Curtain Road	Long Curtain Car Park	
Northern Parade	Alexandra Park	
Portsdown Hill Road	Portsdown Hill	
London Road	Hilsea Lido	
Market Way	Former Tricorn Centre	

Road	Location
Bransbury Road	Bransbury Park
Southsea Esplanade	Southsea Common
Milton Road	Milton Park
Eastern Road	Car Park A27
Eastern Road	Farlington Playing Fields

3.5.2 Aftercare and follow up Treatments

During the thaw the first priority will be to ensure, as far as possible, that road channels and footways are clear of snow in the vicinity of gullies etc. to allow melted snow to drain away. Only after gullies are clear should an attempt be made to clear any stockpiled snow.

As soon as practicable a special inspection of the network will be undertaken to identify any damage caused by the weather or the snow clearance operations.

3.5.3 Abandoned and Parked Vehicles

Where an abandoned or parked vehicle is hampering snow clearing operations the removal from the road, or removal to another part of the road, may be required. Wherever possible the owner will be contacted and requested to remove the vehicle directly but in certain circumstances this may not be possible.

Only police/traffic officers have the authority to move a vehicle in these circumstances and therefore contact will be made through the Snow Desk and an instruction sought from a police/traffic officer for the vehicle to be moved. The specific details of each vehicle, its location and the reason why it needs to be moved will be provided to the police/traffic officer and a log of all communications kept. The vehicle/s will only be moved once an instruction from a police/traffic officer has been received.

Section 4 – Weather Forecasting and Ice Prediction

4.1 General Arrangements

During the winter period Colas will use the "Open Road" forecasting service provided by the Meteorological Office (London Weather Centre). The forecast provided each day gives the following information;

- Area 24-Hour Forecast
- Site Specific Forecast
- Morning Summary
- Evening Update forecast
- Snow Prediction during any High Risk period
- 2– 5 day forecast
- 24 hr contact number for Met Office Weather Forecasters

The main features of the forecasts are:

Readiness colour Green no snow or ice expected

Amber risk of snow and/or ice

Red snow, ice or drifting snow is expected

 Hazards - This section gives information on the hazards giving rise to the Red or Amber readiness colours as well as other potential hazards which could be present with a "Green" forecast (e.g. high winds, heavy rain, fog)

- Temperatures Minimum road surface and air temperature are provided, these are generally given together with a confidence statement of High Medium or Low, by the forecaster.
- 24 Hour Summary This gives a general summary of the weather forecast from 12.00 midday to12.00 midday the following day.
 - 5 day forecast This is an outlook for the 4 days following the day of issue of the forecast information. It gives an indication of the likely minimum road surface temperatures, together with a yes/ no statement for ice, snow, hoar frost and fog.
 - In addition to the above, at approximately 1900 hours each day the London Weather Centre issues an evening forecast. This can be viewed by the WMDO and WMSM at home on a portable (laptop) computer. The WMDO can contact the duty forecaster at the London Weather Centre to discuss any complications that may arise in the forecast. This consultancy service is provided 24 hours a day.

4.2 Ice Prediction System

Colas have subscribed to the Finley Irvine Ice Station Alert System. The variables measured are: air temperature, road surface temperature, relative humidity, precipitation, wind speed and direction, surface condition (wet/dry) and road temperature at 300 mm depth as well as salt residue. These are accessed by the London Weather Centre and fed into their forecasting model, enabling them to prepare a forecast specifically for the area.

The 2 Ice Prediction sensor stations are located as shown below. The selected Forecast site will be one of these two locations and will be determined in liaison with the chosen forecast provider. The sites are:

- 1. Eastern Road, at the entrance to Great Salterns Quay by lamp column 205
- 2. Portsdown Hill Road, adjacent to the parking area just west of Hilltop Crescent by GPO pole DP 847

Finley Irvine software is installed on 2 Desktop PC's and 2 Laptop PCs. One Laptop will remain with the WMDO. The Desktop PCs are located in the Service Company offices and for accessing by WMDO or other delegated officers during the working day. Further access to the forecasting information is available from any PC connected to the Internet via Finley Irvine Ice Station Alert System.

4.3 Records

The WMDO will keep detailed daily records of information using forms from the "Winter Maintenance Operational plan":

- weather forecast
- actual weather conditions
- reports received
- decisions made
- instructions given
- confirmations
- actions taken
- liaison and communications log

These records will comprise paper as well as electronic records. They will be maintained, together with the adjacent authorities' decisions, in the Winter Weather Records File. Records will be archived and retained.

Periodically analysis of the records will be carried out to identify nonconformances or trends and to ensure compliance with the Winter Maintenance Code.

Section 5 – Winter Weather Emergency Preparation and Planning

5.1 Health and Safety

Risk Assessments and Safe Working Methods assessments and safe working methods for office staff and operational staff engaged on winter maintenance are prepared by the WMSM and the WMDO and updated in the second fortnight of September.

5.2 Mutual Aid

The management of the interface between the PCC network and the Trunk Road and other networks is essential to the consistent provision of a winter service. For example, there are local roads at the PCC boundary which are essential to traffic flow within the City.

Mutual aid can be many different things, from the sharing of resources such as salt, the sharing of facilities or assistance to deal with specific problems that may occur near maintenance boundaries.

Whilst these arrangements are often ad hoc, inconsistent and rely upon the goodwill of the parties' involved, Colas is committed to the principle of mutual aid.

5.3 Review

Colas undertake a mid-season and end of season review of the Winter Maintenance Operations. This is initially undertaken by the WMSM and PCC and will cover communication issues, management and delivery of the Winter Service.

Issues may be identified at the initial meeting that may require later input from a third party e.g. the Police. The review will include:

- response and treatment times
- decision making
- command and control
- escalation and snow desk (if applicable)
- liaison and communications
- weather forecasting and ice prediction
- · actual weather conditions
- operational issues
- records
- health and safety
- human resources
- vehicles and plant
- de-icing materials
- depots and facilities
- Identified problem areas on the network
- · Innovation and new techniques

Please find below the main action taken after the review of the 2014-2015 winter season:

- 1) Two additional routes were added during the season which was due to the following;
 - 1 The ambulance service relocated their vehicles from the Eastern Road depot to their new site at North Harbour Spur which is tertiary network therefore not on the gritting route. However, in view of the important service provided, the decision was taken to add this road to the gritting route.
 - 2 The fire station at Somers Road contacted Colas to say they were struggling with their fire engines returning to their station from the access Road at the rear of their station which is tertiary network. Colas decided to investigate this matter and as it was only a short stretch of network, again the decision was taken to add it to the gritting route. It was also agreed with the fire station commander that due to the road being a dead end it would be difficult for our gritting lorry to turn around therefore we would need to use the fire station ground and permission was given by the commander.
- 2) The Streets Ahead website remains under review/construction. Gritting routes and information continue to be published on the PCC website.
- A temporary change to gritting route 12 has been made to incorporate the oneway system which is in place for the duration of The Hard Development works (Wickham Street).

5.4 Winter Service Timetable

The generic preparation table is presented in **Appendix G**, the table below sets out key dates in the delivery of the 2015-2016 winter service.

Date	Who	Action
August 2015	Colas	Preparation of WMOP update
21 August 2015	Colas	Submit WMOP to PCC for review
10 September 2015	PCC	T&T Cabinet Briefing Meeting
n/a	Colas	Amend WMOP as required by PCC
18 September 2015	Colas	Submission of WMOP to PCC
24 September 2015	PCC	T&T Cabinet Decision Meeting
30 September 2015	Colas	Issue WMOP
1 October 2015	n/a	Winter season commences
28 January 2016	Colas	Mid-season review
30 April 2016	n/a	Winter season concludes
26 May 2016	Colas/PCC	Post season review meeting
June 2016	Colas	Post season report to PCC

Section 6 - Resources

6.1 Introduction (Resources)

This section of the Winter Maintenance Operational Plan (WMOP) details the resources available for delivery of winter services including reserve and contingency arrangements.

6.2 Human Resources

The following table defines the key personal responsible for delivery of the services defined within this document:

Function	Title	Contact
Responsibility for Plan	WMSM	07717 665912
Decision maker	WMDO and WMSM if required	07717 665912
First Point of Contact	WMDO	07717 665912
Out of hours contact	WMDO	07717 665912

6.3 Training

The Service Company is committed to ongoing staff training and education. It is essential that the decision maker is competent and experienced in all likely weather conditions. Therefore all staff involved in winter service duties will receive instructions and training, as appropriate to their duties, to ensure effective operation. Training will include; an appreciation of winter weather forecasting, effective decision-making, and particularly the management of snow events and implementation of this WMOP.

It is also essential that there are adequate numbers of HGV drivers within the workforce, trained to drive the necessary machinery, for a prolonged snow event. Operational staff will have the appropriate driving license be trained to appropriate levels, such as City and Guilds Scheme winter service operatives' qualification. Records of all training are kept on file at the Service Company's office.

6.4 Winter Maintenance Exercise

- **6.4.1** A trial exercise shall be carried out in advance of each winter period to check all the plant, operatives and ancillary equipment are available and in working order.
- **6.4.2** This exercise will normally take place in late September. All pre-salting vehicles (including salt spreaders), snowploughs, as shown in **Appendix J** and relevant labour will be involved and tested.

6.4.3 The trial run shall consist of:

- Salting vehicles being loaded with spreading inserts
- A minimum amount of salt and loaded to test the correct operation of the unit
- Ploughs fitted and their operation tested
- Priority 1 routes run in full, checking route maps and schedules are available and correct
- Priority 2 routes, subject to agreement with the Winter Service Activity Manager

The results of this exercise shall be recorded on Checklist A in **Appendix J** and copied to PCC.

6.4.4 Briefing and induction

6.5 Manning Levels

There are 8 qualified drivers for winter service operations on the PCC network. This will provide a minimum resource level of 2 times the number of operational vehicles needed.

An additional 2 fully trained HGV drivers are available on request to provide winter emergency response.

In normal conditions 3 drivers will be on duty at any one time.

In a snow situation there will be sufficient HGV drivers to operate gritters for 24-hour cover for a prolonged period of severe weather.

6.6 De-Icing Material

6.6.1 Type and Specification

To minimise damage to third party property and vehicles and to reduce problems in periods of low humidity it is proposed to utilise 6mm nominal size rock salt as below. Abrasive grit may be used in periods of extreme weather.

- 6mm salt, to BS3247:1991
- Abrasives: 5 or 6mm sharp sand

Following "The Quarmby Review", issued by the Secretary of State for Transport, to consider the resilience of English transport systems, new guidance was issued in Oct 2010 to provide a comprehensive range of spread rates for different weather conditions and spreading capabilities for the UK road network. Whilst Colas has taken these into consideration, we will not be in a position to fully implement them until the existing fleet of vehicles is renewed.

This information has been reviewed in 2015 with no changes, however it is Colas' intention to review the winter maintenance fleet prior to 2016/2017 winter season.

6.6.2 Storage Locations

For the 2015/2016 winter season Colas salt is stored in the Walton Road depot.

The UKRLG updated its recommendations regarding pre-season salt resilience stock level in its report "The resilience of England's Transport Systems in Winter" issued in October 2010. The resilience levels suggested are changing from 6 days/24 runs to 12 days/ 48 runs. This translates into a pre-season stock level for Portsmouth of 864t of salt. The storage capacity at Portsmouth depot is 970t (850t in a dedicated salt barn in Walton Road depot and 120t in a non-covered storage bay), 10% more than the recommended resilience level, which is fully stocked before the start of the winter season. For the record the total tonnage of salt used in 2014/2015 winter was in the region of 929t.

Colas still keeps a framework contract agreement with both main UK salt provider Salt Union and Cleveland Potash. Colas internal growth has increased the level of salt bought by the company, Colas Portsmouth can therefore draw on a privately owned 150,000t of salt.

In 2010, it was agreed that a New Emergency Network is to be considered in case of salt supply shortage. In extreme or prolonged weather conditions, the Government may establish the "Salt Cell", this will control the distribution of salt supplies nationally, and may require the reduction of the treated network. It is important to note that in these circumstances, the control of supply of salt is beyond our control.

Colas have also been in discussions with the Met Office who can now provide a more accurate weather report which highlights the road surface temperature at several locations throughout the City, this will allow us to take a decision with the agreement of PCC, whether to grit certain roads should there be an extreme salt shortage.

It is part of the WMSM's task to be responsible for the timely ordering of replacement salt.

Section 7 – Liaison and communication

7.1 Publicity

It is important that the all interested parties including the general public are aware of and understand Colas/PCC approach to winter maintenance of the public highway.

Queries and complaints from the public will be dealt with directly by Colas via the helpdesk as appropriate and will be recorded through the PEM system.

The plan will be circulated to the list of stakeholders listed in preamble of this plan.

Statements relating to policy, and the general level of service provided will only be made through PCC.

Subject to the approval of PCC, Colas will provide information on agreed relevant details contained in this WMOP for Public Highways to the general public using agreed means of communication. This includes a proposal for the content of PCC Winter Maintenance of public highway website section.

In order to achieve a consistent approach to winter service operations along routes that either enters or leave the PCC boundaries, liaison with HCC and the Highways Agency will take place. All communications will take place by email and telephone as necessary.

Colas will notify the bodies in section 2.2.1 of all proposed treatments once known, but not normally later than 16:00 each day. It will also notify them of other actions including changes to planned treatments, reactive treatments and snow clearance. Communications in severe weather conditions will include regular updates as determined by the prevailing circumstances

All notifications will be by email and phone unless agreement is reached with recipients for transmission by other electronic means.

Colas will consult with PCC, as soon as practicable, on any strategic decisions required or any events that may have a significant effect on the performance of the network, such as strategic road closures.

The form at **Appendix K** will be used for all notifications.

7.2 Reports

7.2.1 Daily reports

Before 9.30am each day the WMDO will provide a daily operational report to the WMSM, detailing the treatments carried out over the last 24 hours and any relevant issues that have arisen during that period. The report shall be submitted in the form defined at **Appendix K.** The reports will be archived on Colas data base and made available to PCC on request.

7.2.2 Regular Updates

During severe weather conditions Colas will provide PCC with regular updates describing the current condition of the network and detailing the ongoing and

proposed winter service operations. The report shall be submitted, by email, by the WMSM in the form defined in **Appendix K.**

7.3 Media Liaison

In order to provide information on the winter maintenance decisions and other routine matters the Service Company will inform PCC communication officer daily in case of severe weather condition and on an ad hoc basis otherwise as required by PCC.

Any direct communication between Colas and the media will first be vetted by PCC.

7.4 Internal Communication Arrangements

During the Winter Service period all normal internal operational communication and instructions will be via landline telephones, mobile telephones and/or emails. Instructions, actions and reports will be recorded.

All winter service depots and gritting vehicles will be equipped with mobile telephone communication to ensure contact can be made by the supervisors and WMDO's at all times.

Appendix A

Other Plans Containing Colas Highway Management Roles and Responsibilities

- Portsmouth City Council Emergency Response Plan
- Colas Emergency Incident Plan

Appendix B

Definitions and abbreviations

PCC Portsmouth City Council

HCC Hampshire County Council

WMSP Winter Maintenance Service Plan

WMSM Winter Maintenance Service Manager

WMDO Winter Maintenance Duty Officer

RST Road Surface Temperature

TWC Tarmac Wearing Course

Appendix C

Guidelines for Decision Making

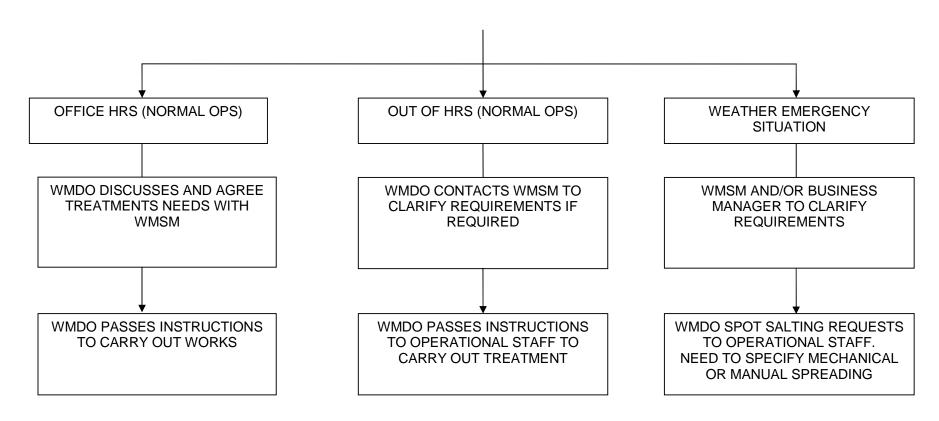
Forecast Conditions	Green	Amber Borderline Freezing Conditions			Red						
	Above Freezing				Definite Freezing Conditions					Snow	
		No rain, freezing fog, or hoar frost, predicted	Rain, early morning freezing fog, or hoar frost predicted	Freezing in some places	No rain, freezing fog, or hoar frost predicted	Rain, freezing fog, or hoar frost predicted in places* *If predicted for North of City only then Routes 1-4 only	Rain predicted before freezing conditions	Rain predicted during freezing conditions	Early morning freezing fog, or hoar frost predicted	Light falls up to pprox 30mm	Moderate falls over 30mm
Road Conditions											
Road surface wet Wet patches on road surface Road surface wet but may dry	1	2	2*	3	3	3	4	3 * and standby for possible repeat run	3 *	5 & 6 and standby for possible repeat run	5 twice & 6 and standby for possible repeat run
Road surface dry Routes pre- salted within 24 hours with no subsequent rain	1	1	2*	1	1	3	4	3 *	3 *	5 & 6	24 twice & 6 Repeat if required

Recommended Action

- 1 No action necessary
- 2 Colas gritters operators to standby in depots (loaded or unloaded as agreed with the Winter Maintenance Duty Officer)
- 2* Colas gritters operators to standby in depots (loaded or unloaded as agreed with the Winter Maintenance Duty Officer)
- 3 & 24 Pre-salting to be completed before commencement of freezing conditions @ 15g/m²
- 3* Pre-salting to be completed before commencement of freezing conditions @ 15g/m²
- 4 Pre-salting to be programmed after rain has finished @ 15g/m²
- 5 Pre-salting to be carried out before predicted snow @ 20g/m²
- 6 Fit snow ploughs as appropriate

Note: M275 to follow Highways England gritting criteria to ensure uniformity

WMDO IDENTIFIES NEED FOR SPOT SALTING TREATMENT



Timing of Action

Pre-salting needs to be timed for maximum de-icing effect, i.e. completed close to the commencement of the freezing period. However, it must be borne in mind that pre-salting operations during the early hours, after midnight, will have a serious effect on the ability of the work force to undertake a full day's work later in the day.

Where possible and where prevailing weather and traffic conditions permit, pre-salting should be timed for mid to late evening, starting between 1900 and 2000 hrs. Where there is a risk of any loss of de-icing effect the run should be timed for a later start.

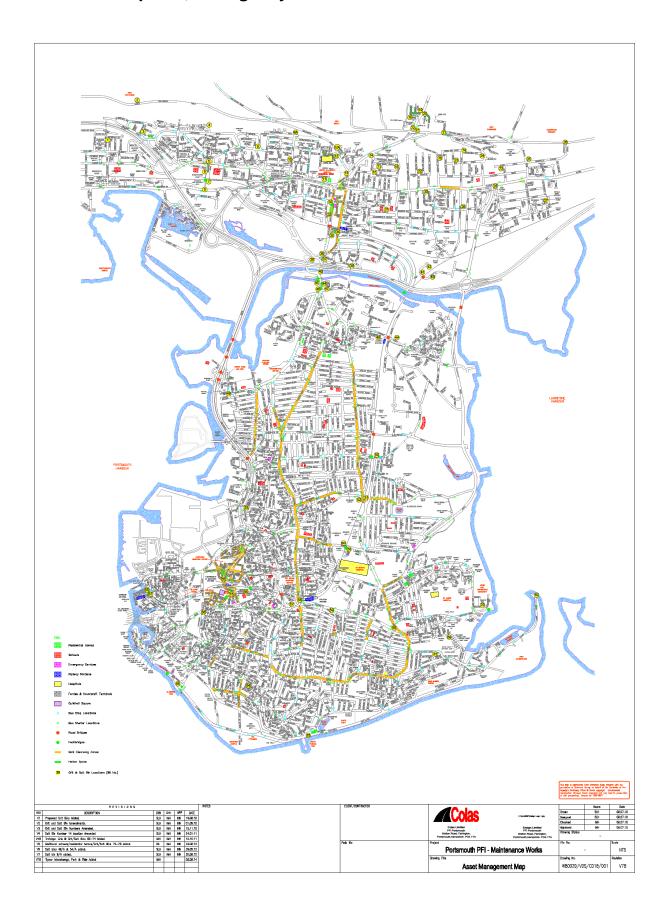
Additionally, unless weather prevailing conditions dictate otherwise runs during the peak traffic periods should generally be avoided (0730 to 0930 and 1600 to 1830).

During periods of continuous shift working the runs can be timed to greatest operational effect as the workforce will not be required for other duties. However, the change of shift period should be avoided if at all possible.

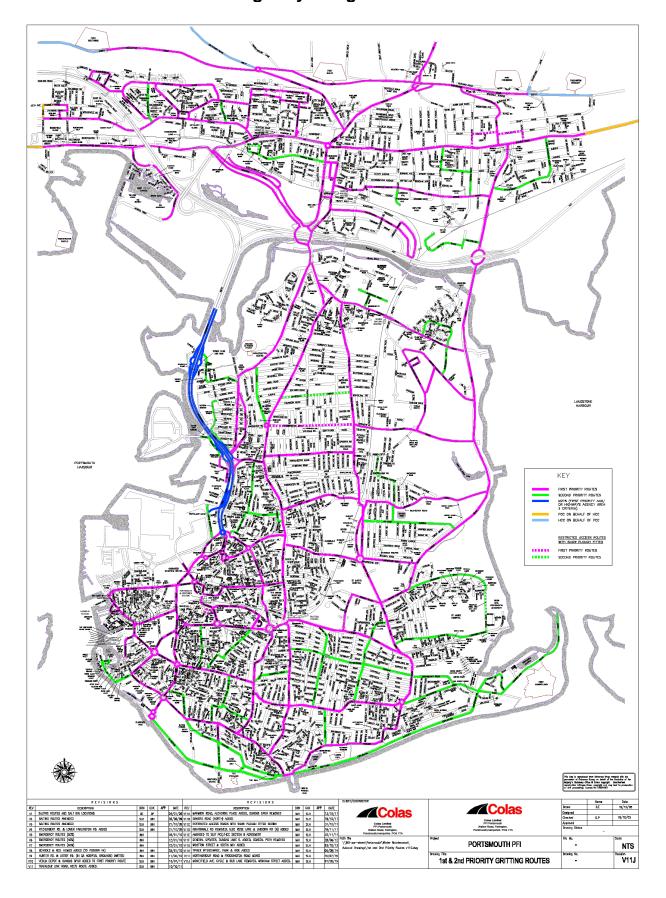
(Appendix C Page 3 of 3)

Appendix D

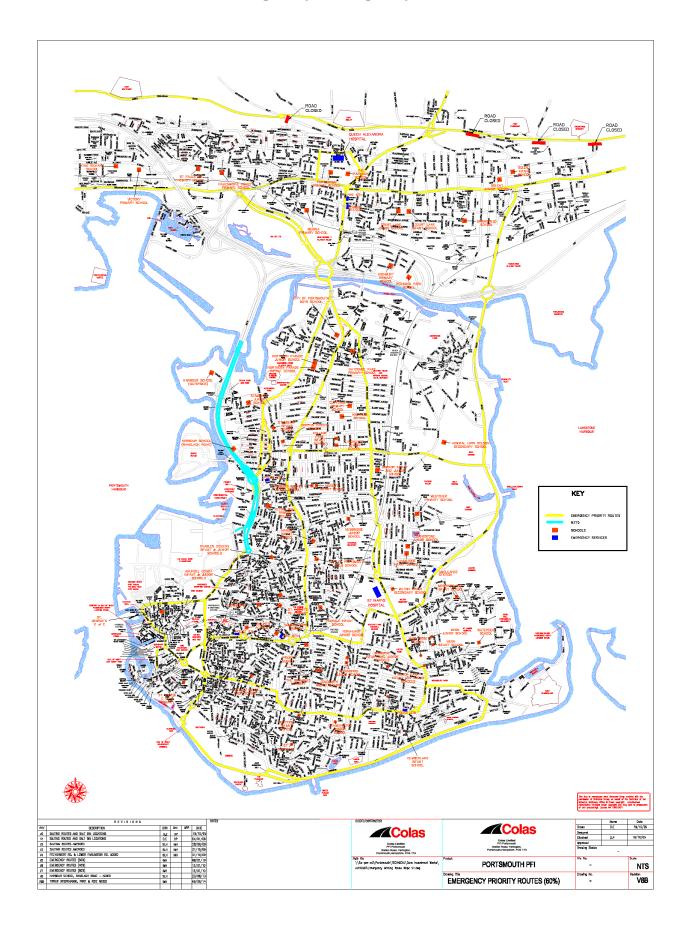
Gold Zones, Bridges, Hollow Spots, Transport Hubs, Residential Homes, Hospitals, Emergency Services and Salt Bins locations



Appendix D1 Carriageway categories 1 and 2



Appendix D2 Carriageway Emergency Network



Appendix D3 Carriageway salting routes details

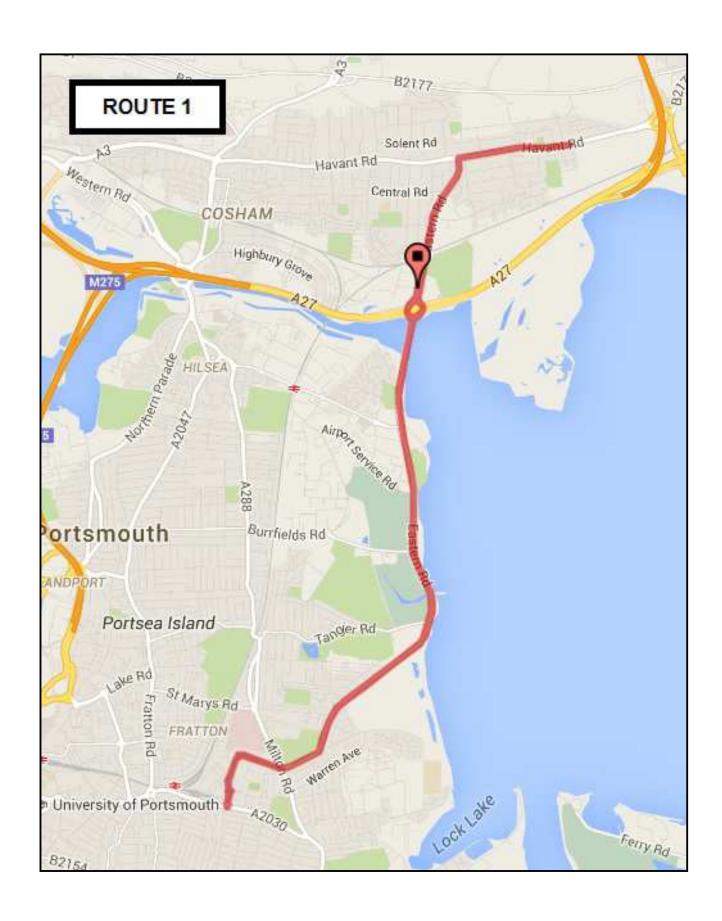
Summary of Priority 1 Salt Routes

Route No.	Route Area	Key Roads/Locations	Design Responsibility
1 Central		Eastern Road (from Walton Rd), Havant Road E (to boundary), Havant Road W, Eastern Road S, Velder Avenue, Rodney Road, Fratton Way (to Goldsmith Av RAB), Velder Avenue, Eastern Road N.	RM
2 North		Havant Road W (from Eastern Rd), Spur Road, Northern Road, London Road (Turn at Park Av), Portsdown Hill Rd W, James Callaghan Drive (up to Fort Southwick), Southwick Hill Road, Portsdown Hill Road E (turn at Crookhorn Lane) Farlington Avenue, Galt Road (to Evelegh Road), Evelegh Road (Galt Rd to Farlington Ave), Solent Road (to Portsdown Ave), Portsdown Avenue (Solent Rd to Havant Rd), Havant Road E (to Eastern Rd).	RM
3	North	Grove Road, Old Manor Way, Lonsdale Avenue, Knowsley Road, Cosham High Street (to Vectis Way), Vectis Way (to Wootton St), Wootton Street, Wayte Street (Wooton St to High St), Cosham High Street, Northern Road, Roebuck Close (and bus lanes), Portsmouth Road, Chatsworth Avenue, Highbury Grove (from Chatsworth Ave to Hawthorn Cres), Hawthorn Crescent (to Wembley Grove), Wembley Grove (Hawthorn Cres to Chatsworth Ave), Portsbridge RAB, Western Road, Northarbour Road, Southampton Road W, Port Way, East Street Portchester, Southampton Road E, Western Road S.	RM
4	North	Southampton Road E (from Western Rd), Allaway Avenue, Jubilee Avenue, Portsdown Road N, Newbolt Road, Connaught Lane, Rowland Road, Raymond Road, Jubilee Avenue, Allaway Avenue, Hillsley Road, Winterbourne Road, Almondsbury Road, Leominster Road, Ludlow Road, Hempstead Road, Elkstone Road, Washbrook Road, Harleston Road, Mablethorpe Road, Boston Road, Peterborough Road, Lowestoft Road, Sevenoaks Road, Cavell Drive, Southampton Road E, Southampton Road W (to Western Rd).	RM
5	Central	Anchorage Road W, Norway Road W, Copnor Road N, Old London Road, London Road N, Copnor Road S, Norway Road E, Copnor Road S, Burrfields Road E, Eastern Road N, Airport Service Road W, Anchorage Road E, Eastern Road S, Burrfields Road W, Dundas Lane N (up to Veolia Entrance), Quartremaine Road N, Alchorne Place, Airport Service Road W, Dundas Lane South (to Quartremaine Rd).	RM
6	Central	Burrfields Road W (from Dundas Lane), Copnor Road N, Old London Road, London Road N, Portsbridge Bus Lanes, London Road S, Kingston Crescent, Rudmore RAB, Wharf Road (to Ferry Gate), Twyford Avenue, Northern Parade N, London Road N, London Road S, Northern Parade S, Stamshaw Road, Kingston Crescent, London Road N (to Old London Rd)	RM
7	Central	Tangiers Road (from Eastern Rd), Baffins Road, Milton Road N, Copnor Road N, Stubbington Avenue, London Road S, Chichester Road, Kingston Road S, Fratton Road S, Fratton Bridge RAB, Fratton Road N, New Road, Baffins Road, St Marys Road (to Fratton Rd)	RM

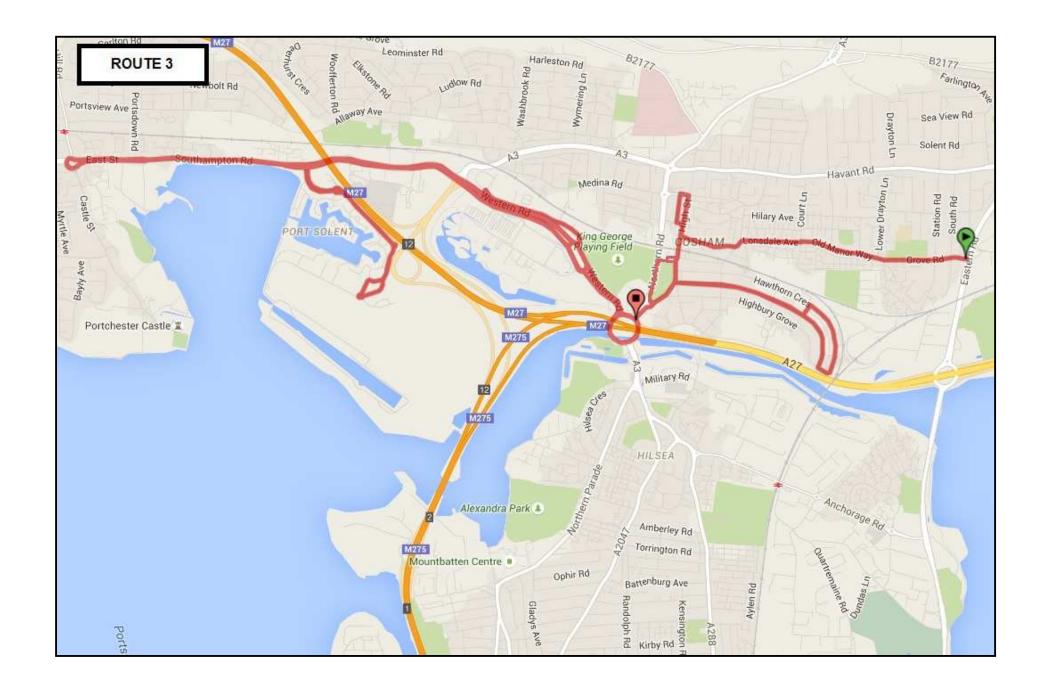
8	South	Langstone Road W (from Eastern Rd), Milton Road S, Eastney Road S, Highland Road W, Albert Road W, Elm Grove W, Kings Road W, Landport Terrace N, Hampshire Terrace N, Lord Montgomery Way N, St Michaels Road N, King Richard 1 st Street E, Winston Churchill Avenue E, Victoria Road North, Goldsmith Avenue E, Milton Road N (to Langstone Rd)	RM
9	South	Mile End Road S, Church Street, Holbrook Road S, Holbrook Road N, Lake Road E, Fratton Road S, Arundel Street E, Holbrook Road N, Lake Road W, Bus Route Area, Unicorn Road, Edinburgh Road W, Alfred Road, Market Way, Hope Street, Commercial Road N Mile End N.	RM
10	South	Arundel Street W (from Fratton Rd), Station Street W, Commercial Road S, Isambard Brunel Road, Alec Rose Lane (to Charles Dickens St), Charles Dickens Street (rear of Civic Offices), Greetham Street, Raglan Street, Froddington Road (to rear of fire station), Somers Road, Winston Churchill Avenue E, Winston Churchill Avenue W, Lord Montgomery Way, St Michaels Road, King Richard 1st Street, Winston Churchill Avenue E, Isambard Brunel Road N, Stanhope Road, Edinburgh Road, Bishop Caspian Way E (to Queen Street).	RM
11	South	Cromwell Road (from RAB), St Georges Road, Eastern Parade, St Helens Parade, South Parade, Clarendon Road (to Circle), Victoria Road South, Victoria Road North, Fawcett Road, Lawrence Road, Waverley Road, Clarendon Road, Osborne Road, Duisburg Way (to RAB)	RM
12	South	Pier Road S, Pier Road N, Jubilee Terrace, Bellevue Terrace, Kings Terrace, Museum Road W, High Street, Pembroke Road, St Georges Road, Gunwharf Road, St Georges Road, The Hard, (Station Approach – Queen St, One Way), Queen St (The Hard – Wickham St, One Way), Wickham St (Queen St – Clock St, One Way), Clock St (turning left onto The Hard) and Station Approach including all bus lanes), Queen Street, Alfred Road, Market Way N, Market Way S, Alfred Road, Anglesea Road, King Richard 1st Street, Lord Montgomery Way, St Michaels Road N, Anglesea Road N. Queen Street S, The Hard E, Park Road.	RM

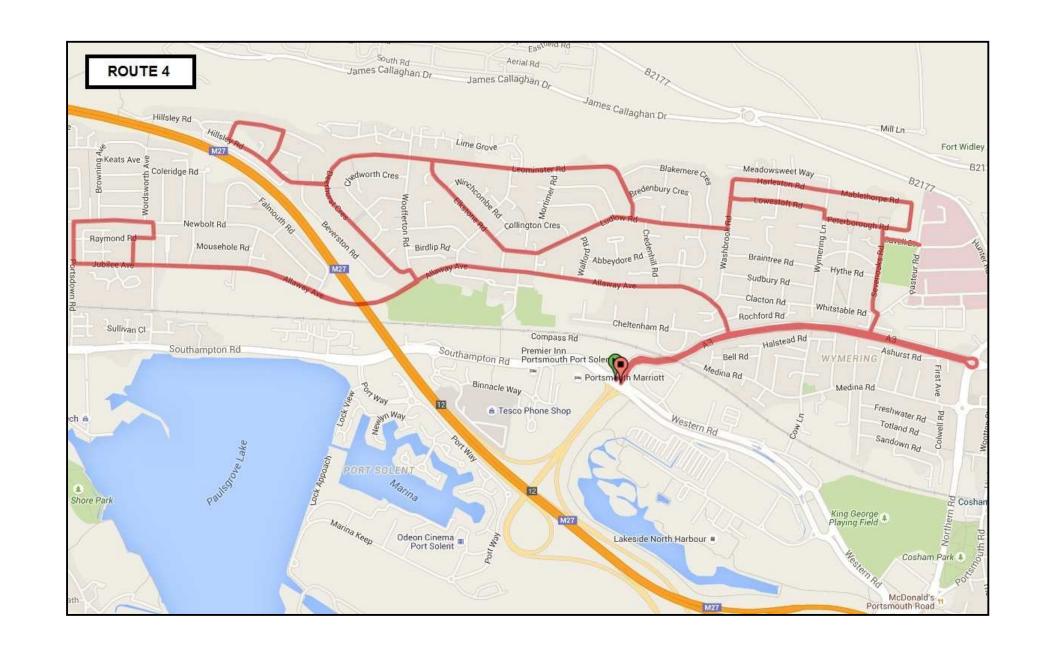
Summary of Priority 2 Salt Routes

Route No.	Route Area	Key Roads/Locations	Design Responsibility	
13	North	Walton Road, Station Road, Central Road, Lower Drayton Lane, Court Lane	RM	
14	North	Medina Road (Northern to Parr), Parr Road (Medina to Bell), Bell Road (Parr to Winterhill), Winterhill Road (Bell to Medina).	RM	
15	North	Credenhill Road (Allaway to Ludlow), Woofferton Road	RM	
16	North	Sywell Crescent, Robinson Way, Moneyfields Avenue Bus Lane, Moneyfields Avenue, Martin Road, Eastbourne Road, Cobden Avenue, Idsworth Road, Neville Road, Hayling Avenue	RM	
17	South	Moorings Way, Furze Lane, Locksway Road, Priory Crescent	RM	
18	Central	Gladys Avenue, Gunstore Road, Limberline Road, Mayfield Road	RM	
19	Central	Tipner Lane, Range Green, Tipner Road, Walker Road	RM	
20	South	Gamble Road, Malins Road, Sultan Road, Nelson Road, Wingfield Street (from Nelson Road to Church St)	RM	
21	Central	Flathouse Road, Prospect Road, Whale Island Way	RM	
22	South	Winter Road, Festing Road, Francis Avenue, Jessie Road, Devonshire Square, Devonshire Avenue	RM	
23	South	Bransbury Road, Ferry Road, Lumsden Road, Fort Cumberland Road, Henderson Road, Eastney Esplanade, Southsea Esplanade	RM	
24	Central	Somers Road South, Cottage Grove, Green Road, Norfolk Street, Eldon Street, Middle Street, High Street Old Portsmouth, Broad Street, Seagers Court, Trimmers Court, East Street	RM	
25	South	Outram Road (Elm Grove to Campbell Rd), Campbell Road, Grove Road South, Marmion Road, Kent Road, Portland Road, Avenue De Caen, Clarence Esplanade W, Southsea Terrrace, Western Parade, Clarence Parade, Clarence Esplanade E.	RM	

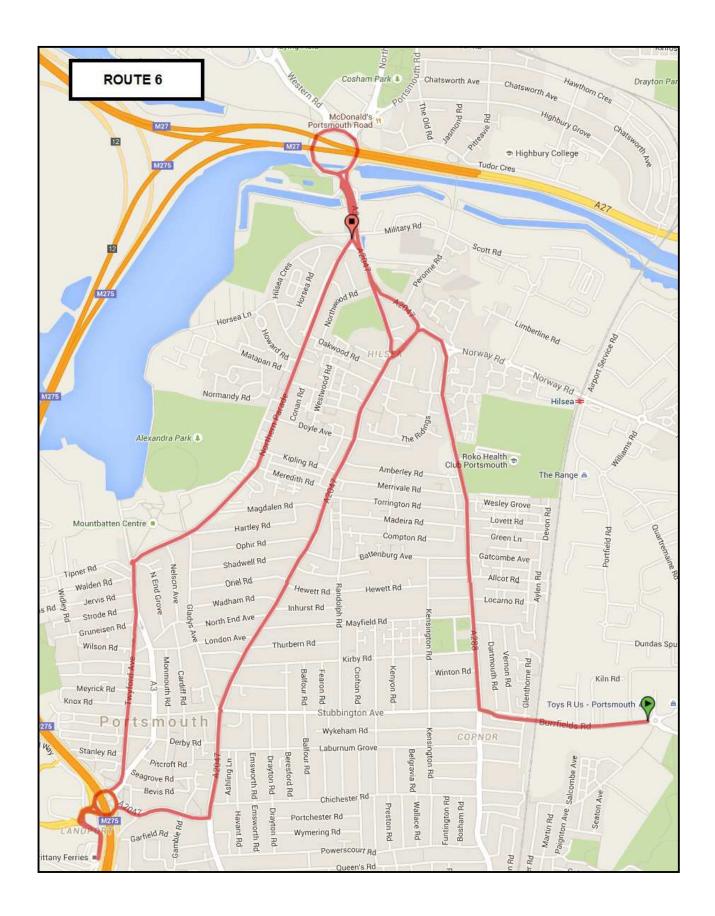


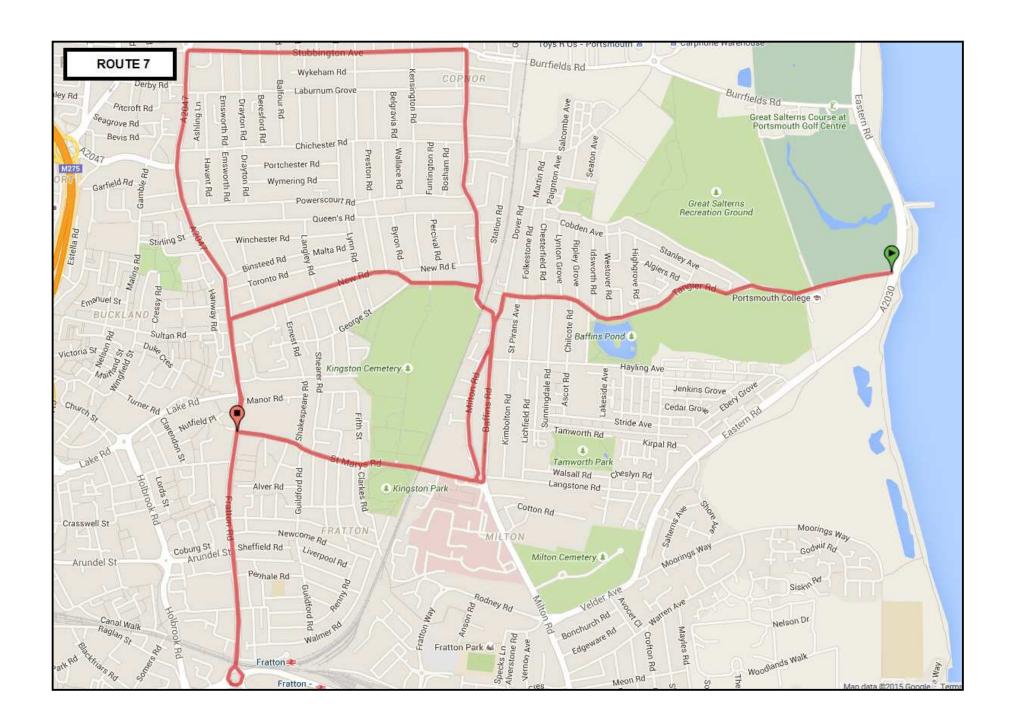


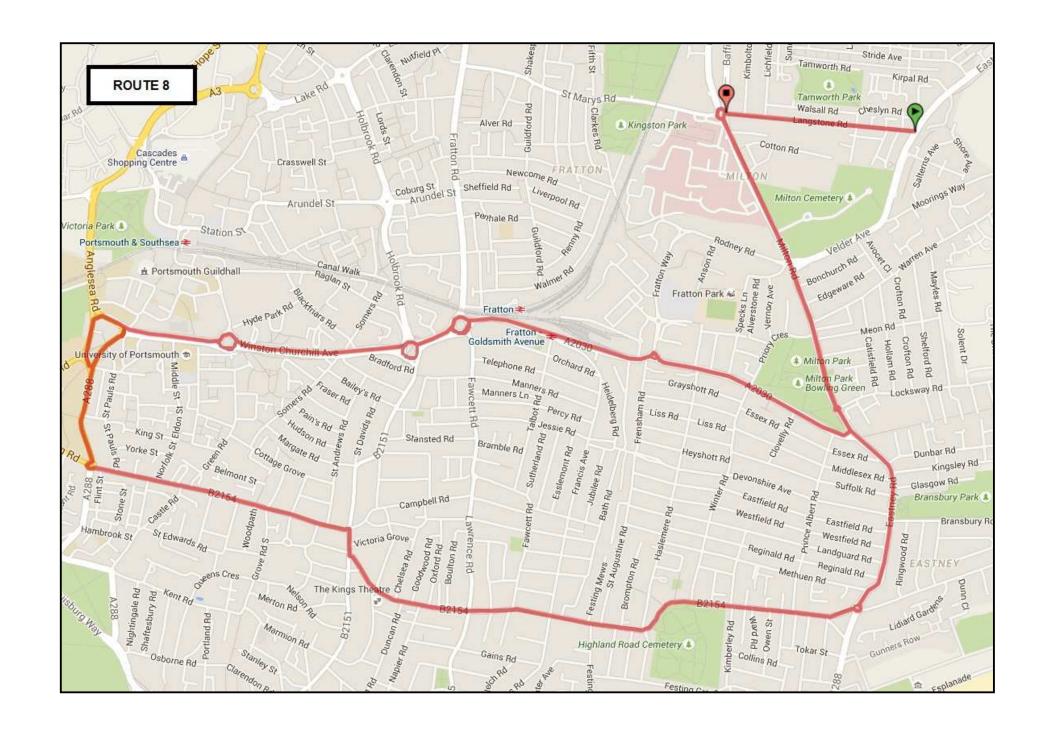


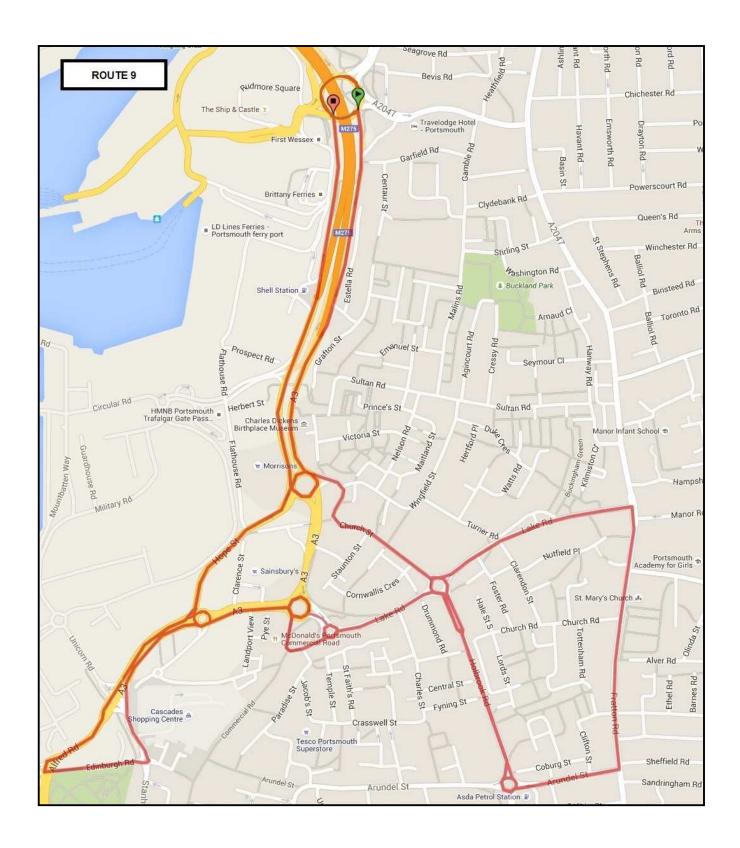


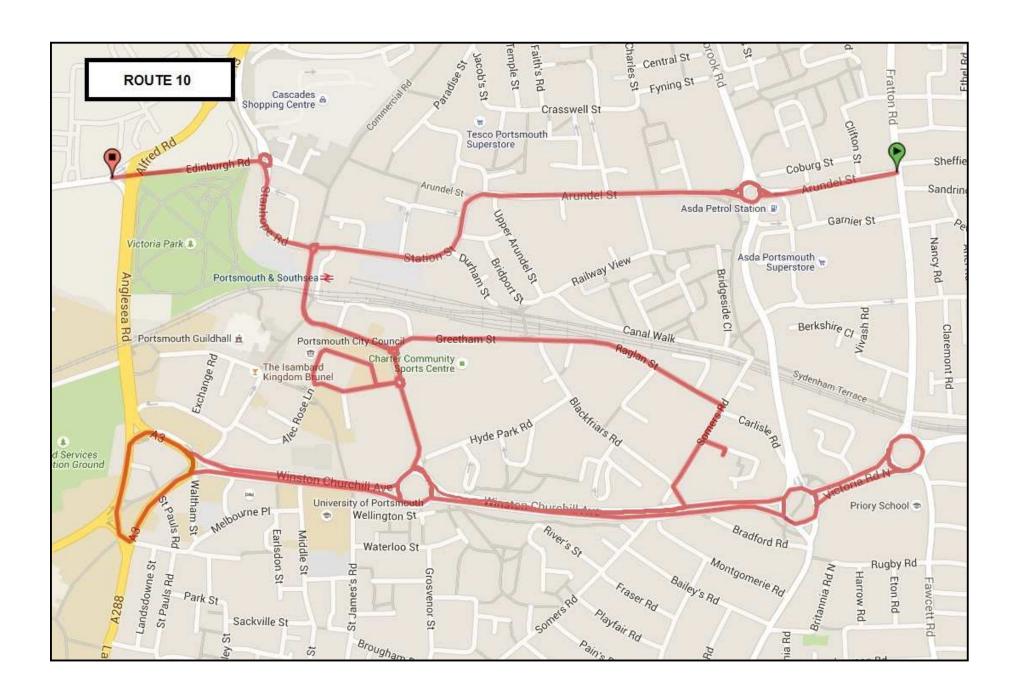




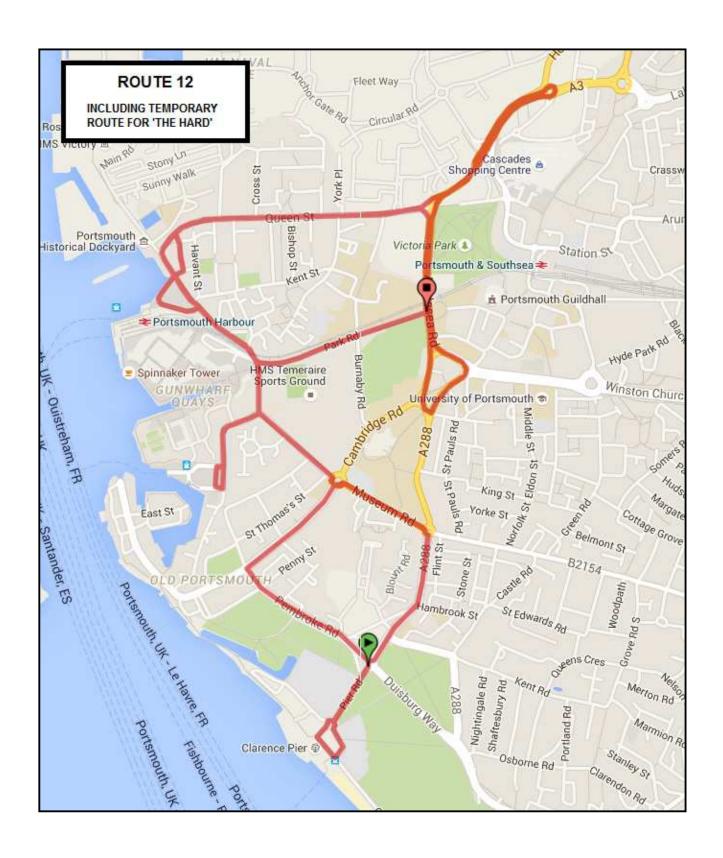


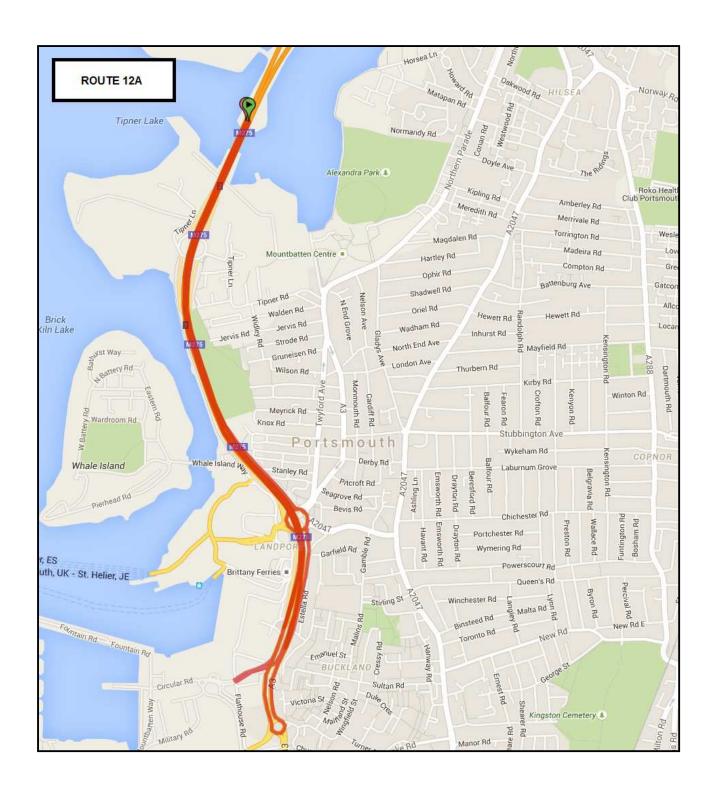


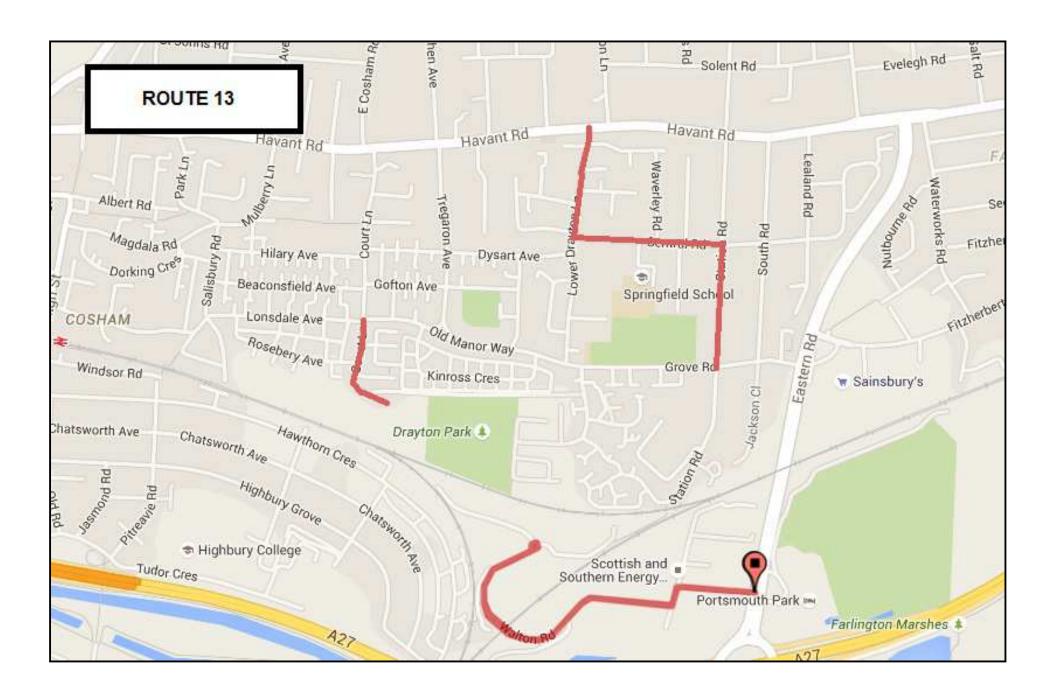


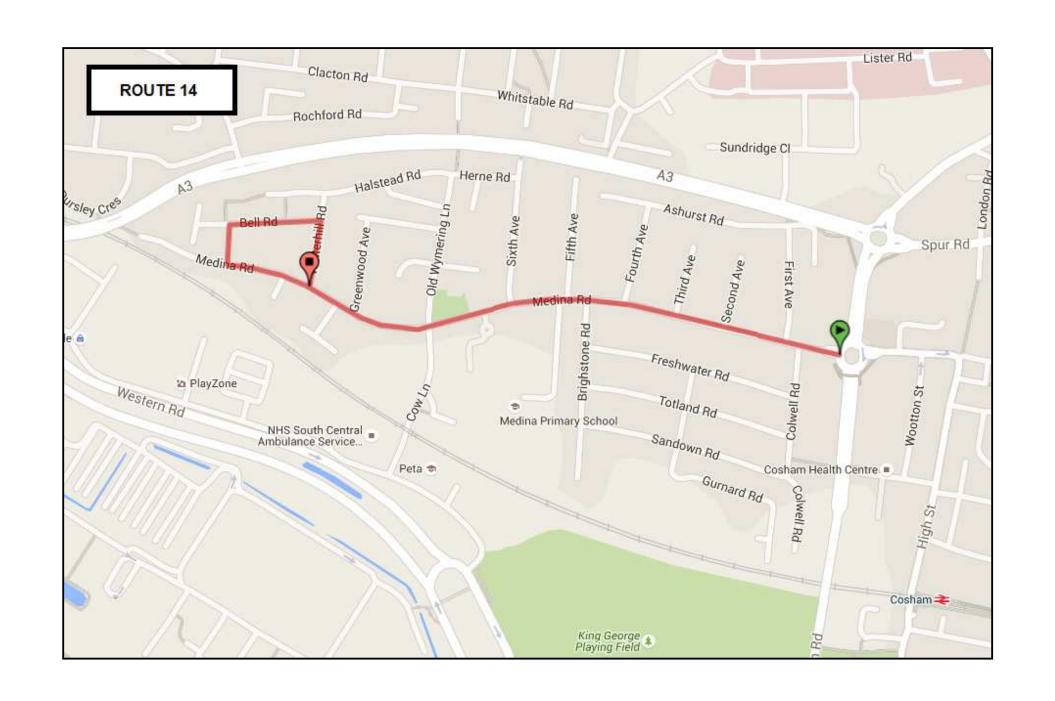




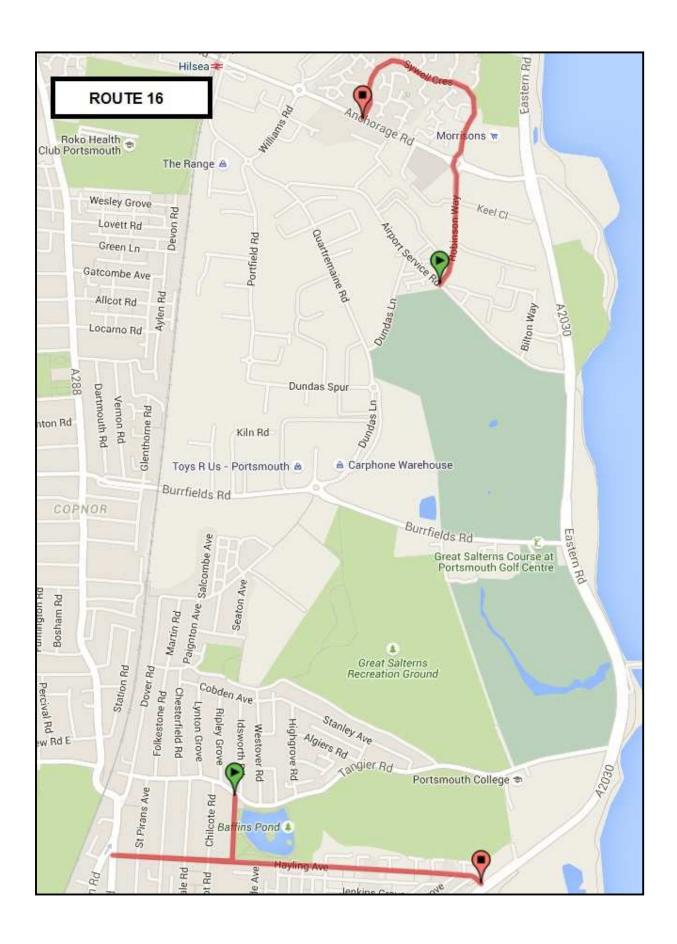


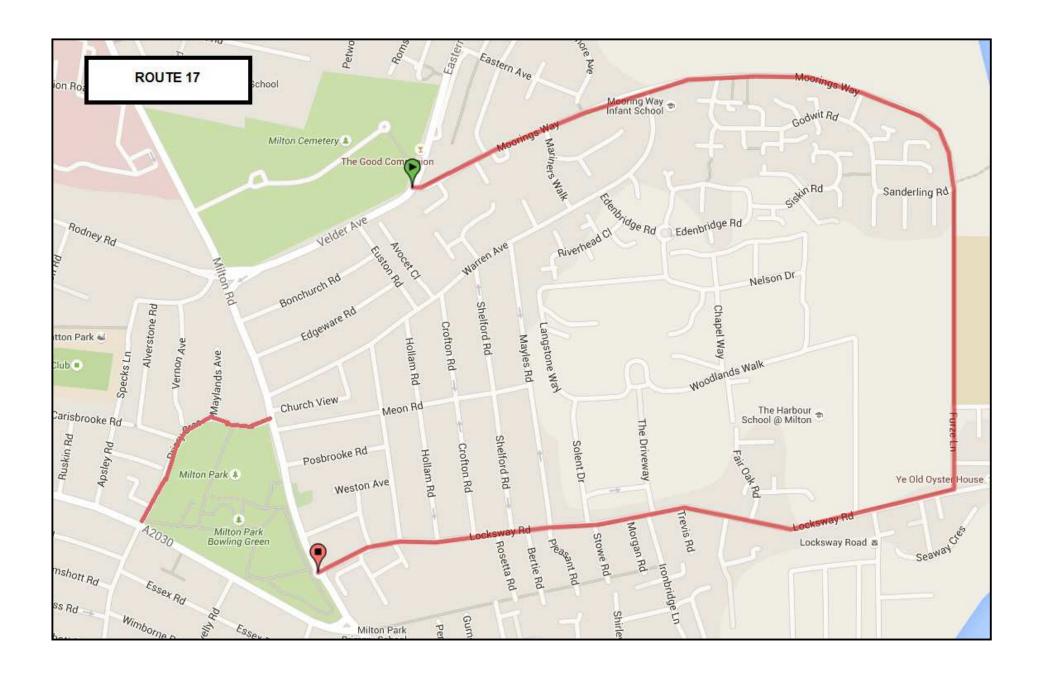


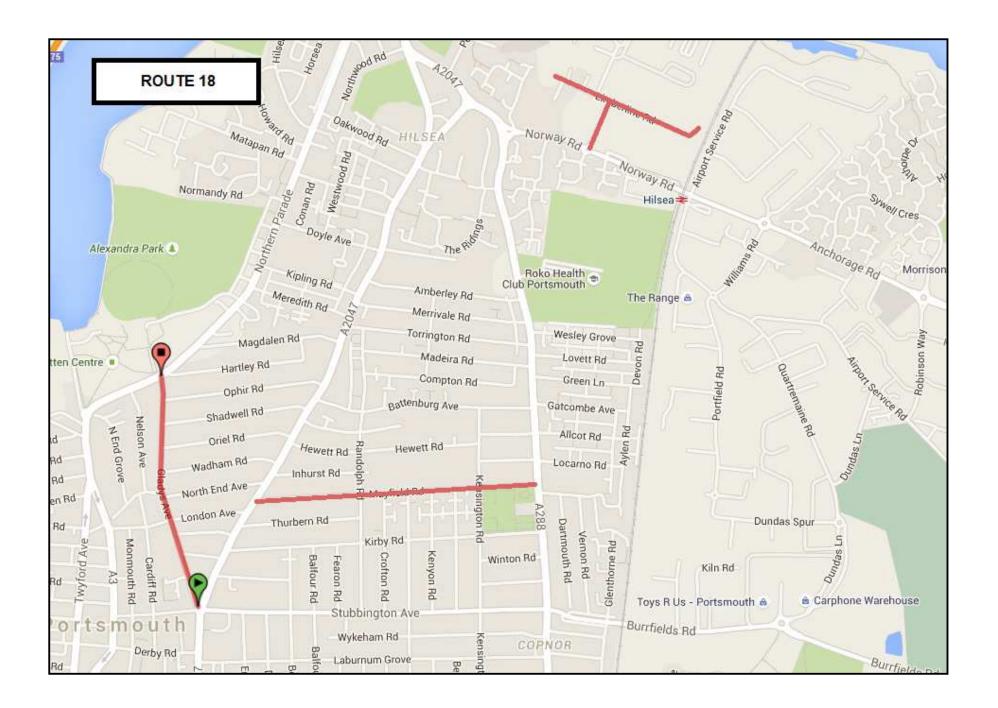


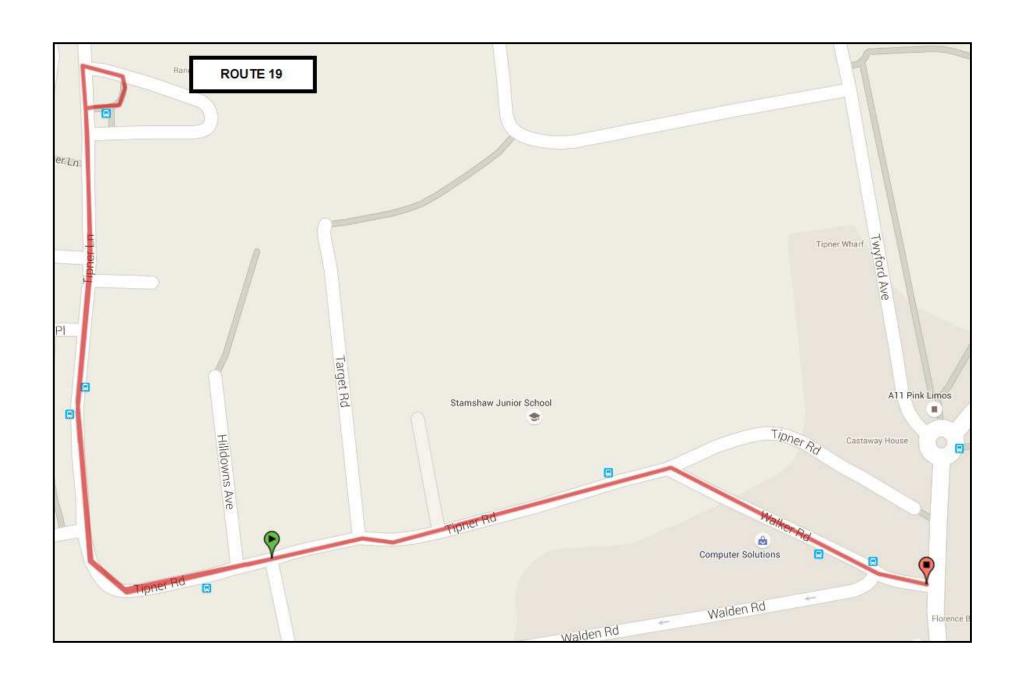


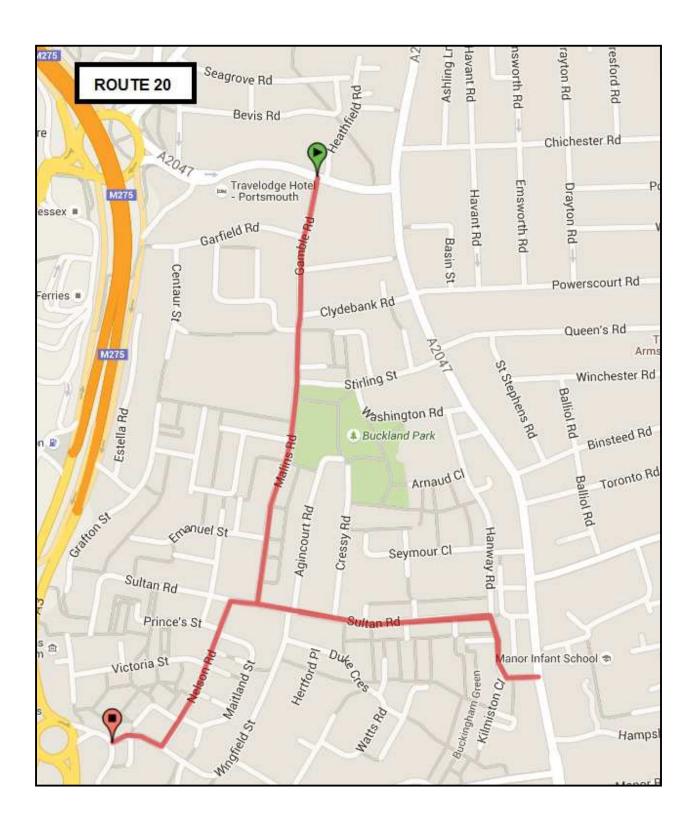


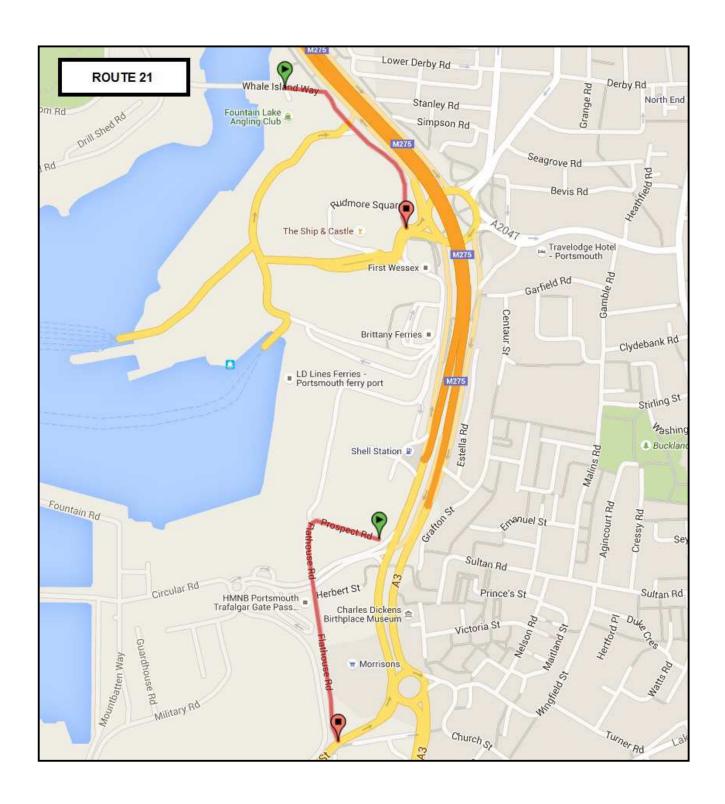


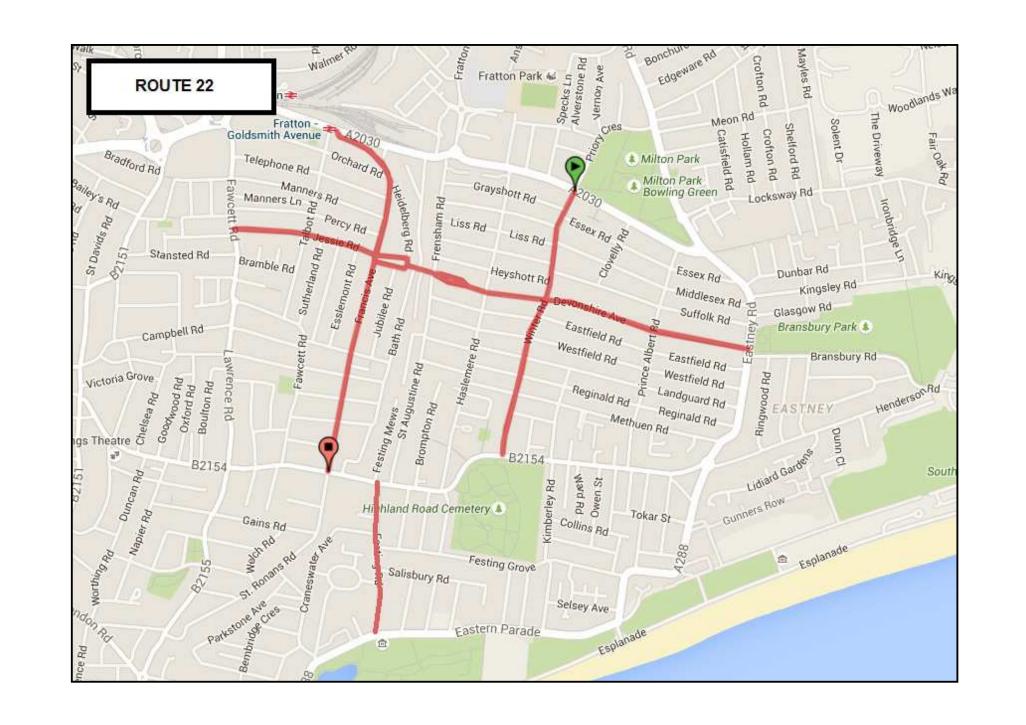


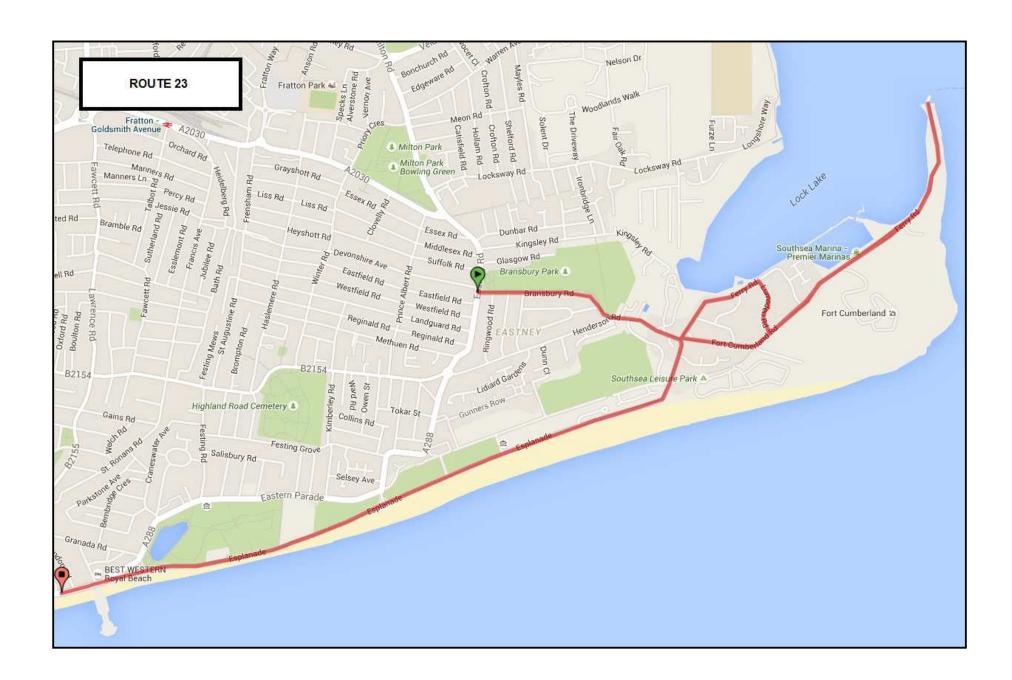


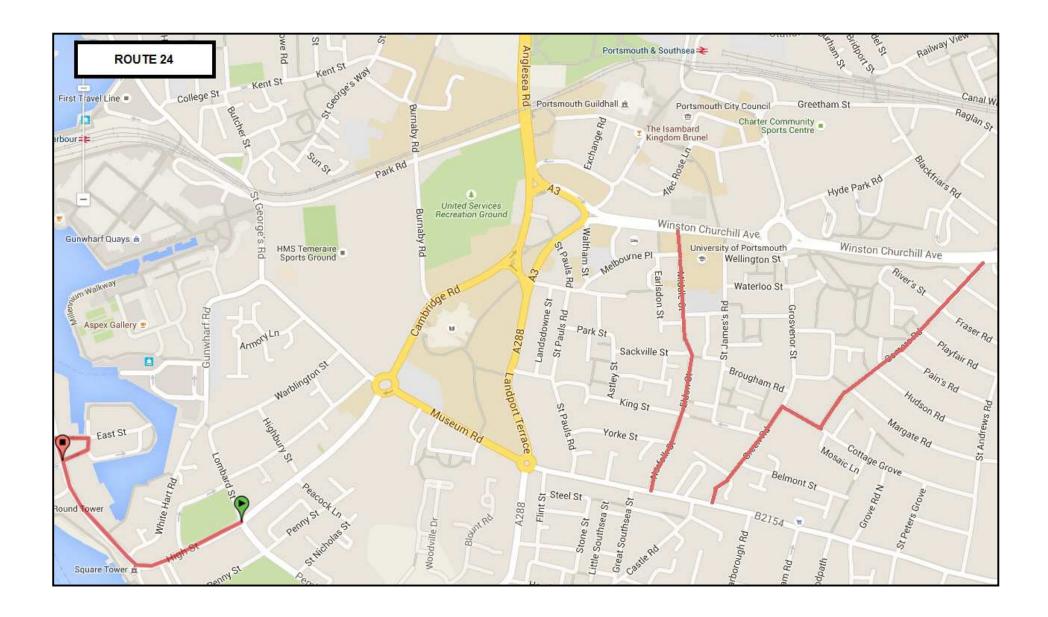














Appendix D4 Salt/Grit Bin Locations

Bin No	Location		
1	Coleridge Road junction Wordsworth Avenue		
2	Fort Southwick junction James Callaghan Drive		
3	Tintern Close junction Winterbourne Road		
4	Lime Grove opposite No 3		
5	Allaway Avenue adjacent lamp column 33		
6	Racecourse Lane opposite Community Centre		
7	Racecourse Lane adjacent lamp column 4		
8	Southampton Road adjacent lamp column 72		
9	Ludlow Road junction Blakemere Crescent		
9A	Meadowsweet Way junction Wymering Lane		
10	Wymering Lane junction Hythe Road		
11	Sundridge Close adjacent lamp column 3		
12	Southwick Hill Road junction QA Hospital Emergency Access		
12A	Southwick Hill Road junction QA Hospital Main Entrance		
13	London Road junction Southwick Hill Road		
14	London Road junction Chalkridge Road		
15	Widley Path near Widley Road		
16	East Cosham Road junction Courtmount Grove		
17	London Road near lamp column 48		
18	Dell Close adjacent garages opposite No 2		
19	Oakhurst Gardens junction A3		
20	Christchurch Road junction A3		
21	Hilltop Crescent junction Portsdown Hill Road		
22	Penrhyn Avenue junction Penarth Avenue		
23	Uplands Road junction Seaview Road		
24	Farlington Avenue junction Blake Road		
25	Gillman Road junction Woodfield Avenue		
26	Beverley Grove junction Portsdown Hill Road		
27	Second Avenue side of No 144		
28 29	Havant Road junction Waterworks Road Central Road junction Station Road		
30	Havant Road outside 174		
31	Hilary Avenue opposite 34		
32	Medina Road junction Northern Road		
33	Northern Road outside Royal Mail (South of Bus Shelters)		
34	Northern Road Bus Terminal access		
35	Portsmouth Road Bus Terminal access		
36	Northern Road northbound approach Portsbridge RAB		
37	Northern Road southbound approach Portsbridge RAB		
38	Western Road junction Portsbridge RAB		
39	Tudor Crescent opposite No 35		
40	London Road (the old water bridge)		
41	Walton Road (on bridge)		
42	Walton Road adjacent lamp column 30		
43	Walton Road junction access road to Colas Depot		
44	London Road opposite Hilsea Lido adjacent lamp column 126		
45	London Road south of footbridge Hilsea Lido		
46	London Road junction metal footbridge (Grit Only)		
47	Military Road junction London Road (Grit Only)		
48	Norway Road approach bridge East		
48A	Norway Road approach bridge West		
49	Tipner Lane junction Tipner Road		
50	Moneyfields Avenue side of 199 Dover Road adjacent lamp column 2		

51 Copnor Bridge junction Tangiers Road 52 New Road opposite No 313 53 Sultan Road adjacent underpass 54 St Marys Road adjacent bridge East 54A St Marys Road adjacent bridge West 55 Stanhope Road junction Commercial Road 56 Greetham Street adjacent Jacobs Ladder 57 Northumberland Road on island adjacent to Nameplate 58 Fratton Road southbound near Selbourne Terrace 59 Goldsmith Avenue junction Francis Avenue 60 Goldsmith Avenue junction Milton Road 61 Bransbury Road adjacent lamp column 12 62 Ferry Road west of lamp column 55 63 Southsea Esplanade junction St Helens Parade 64 Richmond Place side of Waitrose 65 Clarence Esplanade outside Hovertravel 66 Cambridge Road junction St Michaels Road 67 The Hard entrance to Interchange 68 The Hard exit to Interchange 69 Kingsley Road outside Flat 188-194 70 Broom Square junction with Broom Close 71 Burrill Avenue outside No 39 72 London Road junction of Portsdown Hill Road 73 Galt Road junction of Grant Road 74 Portsdown Avenue junction Mary Rose Street 76 Drayton Lane junction Down End Road	Din Na	Location		
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73 Galt Road junction of Grant Road 74 Portsdown Avenue junction of Moortown Avenue 75 Alec Rose Lane junction Mary Rose Street	71	Burrill Avenue outside No 39		
 74 Portsdown Avenue junction of Moortown Avenue 75 Alec Rose Lane junction Mary Rose Street 	72			
75 Alec Rose Lane junction Mary Rose Street		Galt Road junction of Grant Road		
, ,	74	Portsdown Avenue junction of Moortown Avenue		
76 Drayton Lane junction Down End Road	75	Alec Rose Lane junction Mary Rose Street		
	76	Drayton Lane junction Down End Road		

• Total 80 No (including 9A, 12A, 48A and 54A)

Appendix D5 – Salt/Grit Bin Check Sheet

	Location	Condition G = good F = fair P = poor	Contents F = full H = half full E = empty	Comments	Inspection date
1	Coleridge Road junction Wordsworth Avenue				
2	Fort Southwick junction James Callaghan Drive				
3	Tintern Close junction Winterbourne Road				
4	Lime Grove opposite No 3				
5	Allaway Avenue adjacent lamp column 33				
6	Racecourse Lane opposite Community Centre				
7	Racecourse Lane adjacent lamp column 4				
8	Southampton Road adjacent lamp column 72				
9	Ludlow Road junction Blakemere Crescent				
9A	Meadowsweet Way junction Wymering Lane				
10	Wymering Lane junction Hythe Road				
11	Sundridge Close adjacent lamp column 3				
12	Southwick Hill Road junction QA Hospital Emergency Access				
12A	Southwick Hill Road junction QA Hospital Main Entrance				
13	London Road junction Southwick Hill Road				
14	London Road junction Chalkridge Road				
15	Widley Path near Widley Road				
16	East Cosham Road junction Courtmount Grove				
17	London Road near lamp column 48				
18	Dell Close adjacent garages opposite No 2				
19	Oakhurst Gardens junction A3				
20	Christchurch Road junction A3				
21	Hilltop Crescent junction Portsdown Hill Road				
22	Penrhyn Avenue junction Penarth Avenue				
23	Uplands Road junction Seaview Road				
24	Farlington Avenue junction Blake Road				
25	Gillman Road junction Woodfield Avenue				
26	Beverley Grove junction Portsdown Hill Road				
27	Second Avenue side of No 144				
28	Havant Road junction Waterworks Road				
29	Central Road junction Station Road				
30	Havant Road outside 174				
31	Hilary Avenue opposite 34				
32	Medina Road junction Northern Road				
33	Northern Road outside Royal Mail (South of Bus Shelters)				
34	Northern Road Bus Terminal access				
35	Portsmouth Road Bus Terminal access				
36	Northern Road northbound approach Portsbridge RAB				
37	Northern Road southbound approach Portsbridge RAB				
38	Western Road junction Portsbridge RAB				
39	Tudor Crescent opposite No 35				

	Location		Condition G = good F = fair P = poor	Contents F = full H = half full E = empty	Comments		Inspection date
40	London Road (the old water bridge)						
41	Walton Road (on bridge)						
42	Walton Road adjacent lamp column 30						
43	Walton Road junction access road to Colas Depot						
44	London Road opposite Hilsea Lido adjacent lamp colur	mn 126					
45	London Road south of footbridge Hilsea Lido						
46	London Road junction metal footbridge (Grit Only)						
47	Military Road junction London Road (Grit Only)						
48	Norway Road approach bridge East						
48A	Norway Road approach bridge West						
49	Tipner Lane junction Tipner Road						
50	Moneyfields Avenue side of 199 Dover Road adjacent	lamp col 2					
51	Copnor Bridge junction Tangiers Road	•					
52	New Road opposite No 313						
53	Sultan Road adjacent underpass						
54	St Marys Road adjacent bridge East						
54A	St Marys Raod adjacent bridge West						
55	Stanhope Road junction Commercial Road						
56	Greetham Street adjacent Jacobs Ladder						
57	Northumberland Road on island adjacent to Nameplate	9					
58	Fratton Road southbound near Selbourne Terrace						
59	Goldsmith Avenue junction Francis Avenue						
60	Goldsmith Avenue junction Milton Road						
61	Bransbury Road adjacent lamp column 12						
62	Ferry Road west of lamp column 55						
63	Southsea Esplanade junction St Helens Parade						
64	Richmond Place side of Waitrose						
65	Clarence Esplanade outside Hovertravel						
66	Cambridge Road junction St Michaels Road						
67	The Hard entrance to Interchange						
68	The Hard exit to Interchange						
69	Kingsley Road outside flats 188-194						
70	Broom Square junction Broom Close						
71	Burrill Avenue outside 39						
72	London Road junction Portsdown Hill Road (on island)						
73	Grant Road junction Galt Road						
74	Portsdown Ávenue junction Moortown Avenue						
75	Alec Rose Lane junction Mary Rose Street						
76	Drayton Lane junction Down End Road						
Print	Name:	Signature:				Date:	

Appendix E — Detailed identification of FW leading to schools

Please note that for each school identified below Colas hold electronically a detailed map describing location of the FW to be treated and recommended snow pile locations.

						01		Dista nce	Total			De	escription of	path to clear			
Name	Addre ss / Locat	Street	District	Postcod	Use	Closest CW tre	eated	from main road	area (sqm)	Snow storage	From	junction betwe	een	From j	junction betw	reen	Comments
	ion			e e		Road	Cat eg ory	to gate (lm)	to treat	location	Road	Road	Side	Road	Road	Side	
Solent Junior School	42	Solent Road	Farlington / Drayton	PO6 1HJ	Junior School	Solent Road	1	68	136	Junction Dene Hollow / Solent Road	n/a	n/a	North	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)
Solent Infant School	Oppo site of 4- 18	Evelegh Road	Farlington / Drayton	PO6 1HJ	Infant School	Evelegh Road	1	67	134		n/a	n/a	South	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)
Portsdown Primary School		Sundridge Close	Cosham	PO6 3JL	Primary School	Southampton Road	1	152m	304		n/a	n/a	West	n/a	n/a	n/a	
The Harbour School		Sundridge Close	Cosham	PO6 3JL	Primary School	Southampton Road	1	102	204		n/a	n/a	West	n/a	n/a	n/a	
Highbury Primary School		Dovercourt Road	Cosham	PO6 2RZ	Primary School	Chatsworth Avenue	1	241	362		Dovercrout Road	Chatsworth Avenue	West	Chartswort h Avenue	Bus Access		
Highbury College		Dovercourt Road	Cosham	PO6 2RZ	College	Chatsworth Avenue	1	264	396		Dovercrout Road	Chatsworth Avenue	West	Chartswort h Avenue	Bus Access		Near Highbury Primary School
Redwood Park School		Wembley Grove	Cosham	PO6 2RY	Primary School	Chatsworth Avenue	1	213	320		Wembley Grove	Chatsworth Avenue	East	Chartswort h Avenue	Bus Access		
Court Lane Junior School		Hilary Avenue	Cosham	PO6 2PP	Junior School	Lonsdale Avenue	1	355	710		Hilary Avenue	Lonsdale Avenue	East	Lonsdale Avenue	Bus Access		
Court Lane Infant School		Hilary Avenue	Cosham	PO6 2PP	Infant School	Lonsdale Avenue	1	275	550		Hilary Avenue	Lonsdale Avenue	East	Lonsdale Avenue	Bus Access		Near Court Lane Junior School/ same footway
Springfield School		Central Road	Cosham	PO6 1QY	Seconda ry School	Grove Road	1	80	160		n/a	n/a	North	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)
Medina Primary School	106	Medina Road	Cosham	PO6 3NH	Primary School	Medina Road	2	145	290	Junction Medina Road/Brighsto ne Road	School	Bus access	South (35m)	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)

Beacon View Academy (former Paulsgrove Primary School)	Oppo site of 1-12 Dowto wn House	Cheltenha m Road	Paulsgrove	PO6 3PL	Primary School	Allayway Avenue	1	107	177	Greenspace near school	School	Bus access	North (37m)	School	Bus Access	South (70 m)	Direct access from school to the main road (clearance needed just in front of the school)
St Paul RC Primary School	253	Bourne Road	Paulsgrove	PO6 4JD	Primary School	Allayway Avenue	1	174	522		Bourne Road	Allaway Avenue	South	Junction Bourne Road/Allaw ay Avenue	Bus Access	South	
King Richard School	342	Allayway Avenue	Paulsgrove	PO6 4QP	Primary School	Allayway Avenue	1	165	330	Greenspace near school	School	Bus access	South (70m)	School	Bus access	North (80m)	Direct access from school to the main road (clearance needed just in front of the school)
Trafalgar Academy (former City of Portsmouth Boys School)		London Road	Hilsea	PO2 9RS		London Road	1	15	93	Near School	n/a	n/a	n/a	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)
Northern Parade Academy		Doyle Avenue	Hilsea	PO2 9NE	Junior School	Northern Parade	1	100	200	Large Footway	School	Junction	North (40 m)	Junction	Bus access	East (60 m)	
Northern Parade Academy		Kipling Road	Hilsea	PO2 9NJ	Infant School	Northern Parade	1	65	130		Doyle Avenue	Junction with Northern Parade	South	n/a	n/a	n/a	
Stamshaw Junior School	57	Tipner Road	Nelson	PO2 8QH	Junior School	Stamshaw Road	2	55	110		n/a	n/a	North	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)
Stamshaw Infant School	126	North End Avenue	Hilsea	PO2 8NW	Infant School	Stamshaw Road	1	45	135	Large Footway	Northe End Avenue	Stamshaw Road	South (45m)	n/a	n/a	n/a	
Mayfield School		Mayfield Road	Copnor	PO2 0RH		Mayfield Road	2	6	15		n/a	n/a	South	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)
Cliffdale Primary School	107	Battenburg Avenue	Copnor	PO2 05N	Primary School	Copnor Road	1	185	370		n/a	n/a	South	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)
Gatcombe Park Primary School		St Barbara Way	Hilsea	PO2 0UR	Primary School	Copnor Road	1	212	636	Greenspace	School	Copnor Road	West (70m)	Copnor Road	Bus access	South (142m)	
Admiral Lord Nelson Secondary School		Dundas Lane	Hilsea	PO2 0UR	Seconda ry School	Dundas Lane	1	212	636	Greenspace	School	Dundas Lane	West (70m)	Dundas Lane	Bus access	South (142m)	
Harbour School		Tipner Lane	Nelson	PO2 8ID		Tipner Road	2	656	1312		Tipner Lane	Tipner Road	South	n/a	n/a	n/a	
Flying Bull Academy		Flying Bull Lane	Neslon	PO2 7BJ	Primary School	Malins Road	2	115	575	Large Footway	Shool	Junction	South	n/a	n/a	n/a	
Manor Infant School		Inverness Road	Fratton	PO1 5QR	Infant School	Kingston Road	1	82	164		Shool	Junction	South	n/a	n/a	n/a	

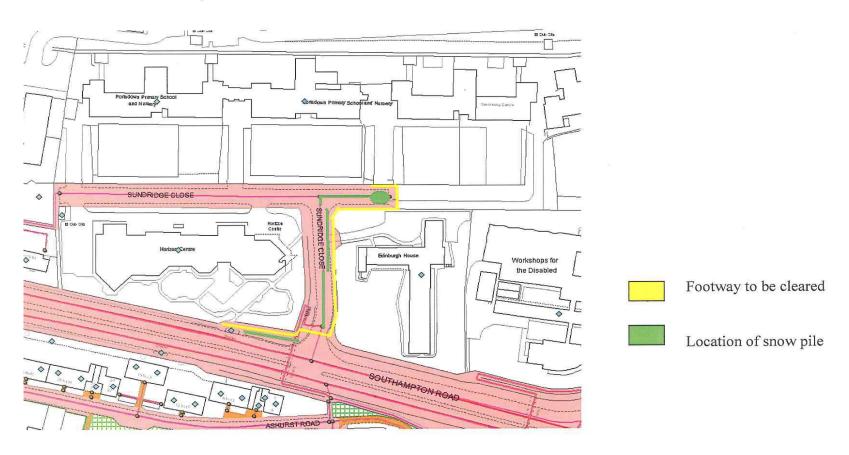
Portsmouth Academy for Girls	Front of Cathe dral	St Marys Road	Fratton	PO1 5PF		St Marys Road	1	12	72		n/a	n/a	North	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)
Ark Dickens Academy (former Charles Dickens Infant & Junior School)	25	Turner Road	Charles Dickens	PO1 40N	infant and Junior School	Lake Road	1	150	300		School	Junction Turner Road / Lake Road	West (112 m)	Junction Turner Road / Lake Road	Bus access	North (48m)	
Westover Primary School		Westover Road	Baffins	PO3 6NS	Primary School	Tangier Road	1	167	334		School	Tangier raod	East	n/a	n/a	n/a	
Copnor Infant & Junior School		Copnor Road	Copnor	PO3 5BZ	infant and Junior School	Copnor Road	1	160	320		n/a	n/a	East	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)
Langstone Junior School		Lakeside Avenue	Baffins	PO3 6EZ	Junior School	Hayling Avenue	2	50	100		Shool	Junction	East	n/a	n/a	n/a	
Langstone Infant School		Ascot Road	Baffins	PO3 6EY	Infant School	Hayling Avenue	2	160	320		Shool	Junction	West	n/a	n/a	n/a	
Newbridge Junior School	213	New Road	Fratton	PO2 7 RW	Junior School	New Road	1	55	110		n/a	n/a	South	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)
Meredith Infant School	33	Porchester Road	Copnor	PO2 7BJ	Infant School	Chichester Road	1	170	340		School	Junction Porchester Road / Drayton Road	South	Junction Porchester Road / Drayton Road	Junction Drayton Road / Chichest er Road	East	
Isambard Brunel Junior School	17	Portchester Road	Copnor	PO2 7HX	Junior School	Chichester Road	1	130	260		School	Junction Porchester Road / Drayton Road	South	Junction Porchester Road / Drayton Road	Junction Drayton Road / Chichest er Road	East	Near Meredith Infant School / same footway
Lyndhurst Junior School	94	Crofton Road	Copnor	PO2 0NT	Junior School	Stubbington Road	1	76	152		School	Junction Lyndhurst Road / Stubbingto n Road	West	n/a	n/a	n/a	
College Park Infant School	116	Lyndhurst Road	Copnor	PO2 0LB	Infant School	Stubbington Road	1	136	274		School	Junction Crofton Road / Stubbingto n Road	West	n/a	n/a	n/a	
Cumberlan d Infant School	163	Methuen Road	Eastney	PO4 9HJ	Infant School	Highland Road	1	193	328.1	End of Pedam close	n/a	n/a	n/a	n/a	n/a	n/a	Clearance needed infront of the school to the main road

Constants										I				1				
Craneswate r Junior School	210	St Ronan's Road	Southsea	PO4 0PX	Junior School	Albert Road	1	29	63.8	in the school park	n/a	n/a	n/a	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)	
St Swithuns Catholic Primary School		Taswell Road	Southsea	PO6 2RG	Junior School	ClarandonRoa d	1	100	150	behind st simons church	n/a	n/a	n/a	n/a	n/a	n/a	Clearance needed infront of the school to the main road	
Southsea Infant School	56	Napier Road	Southsea	PO5 2SR	Infant School	Albert Road	1	118	236	End of Collingwood Road	n/a	n/a	n/a	n/a	n/a	n/a	Clearance needed infront of the school to the main road	
Cottage Grove First School	30 Cotta ge Grove (Behin d)	Chivers Close	Southsea	PO5 1HG	Junior School	Somers Road	2	138	369	End of Chiverss Close	n/a	n/a	n/a	n/a	n/a	n/a	Clearance needed infront of the school to the main road	
St Jude's C of E Primary School	15	St Nicholas Street	Southsea	PO1 2NZ	Junior School	High street	1	137	319	End of Nicholas Street	n/a	n/a	n/a	n/a	n/a	n/a	Clearance needed infront of the school to the main road	
The Brambles Nursery	27	Bramble road	Southsea	PO4 ODT	nursery	Fawcett road	1	92	184	End of Ventnor road	Bramble Road	n/a	South	n/a	n/a	n/a	Clearance needed infront of the school to the main road	
Goldsmith Infant School	33	Bramble road	Southsea	PO4 ODT	Infant School	Fawcett road	1	19	38	End of Ventnor road	Bramble Road	n/a	South	n/a	n/a	n/a	Clearance needed infront of the school to The brambles nursery	
Devonshire Infant & Junior School	197	Francis avenue	Southsea	PO4 OA5	Junior School	Francis avenue	2	45	99	Large footway in front of the school	Francis Avenue	n/a	East	n/a	n/a	n/a	Clearance needed infront of the school to the main road	
Fernhurst Junior School	197	Francis avenue	Southsea	PO4 OA6	Junior School	Francis avenue	2	74	162.8	Large footway in front of the school	Francis Avenue	n/a	East	n/a	n/a	n/a	Clearance needed infront of the school to Devonshire junior school	
Wimborne Infant School		Wimbourne Road	Southsea	PO4 8DE	Infant School	Winter road	2	54	129.6	Large footway in front of the school	Evans Road	n/a	North	n/a	n/a	n/a	Clearance needed infront of the school to the main road	
Wimborne Junior School		Wimbourne Road	Southsea	PO4 8DE	Junior School	Winter road	2	74	177.6	Large footway in front of the school	Evans Road	n/a	North	n/a	n/a	n/a	Clearance needed infront of the school to Wimborne infant school	
Milton Park Academy	2	Dunbar road	Southsea	PO4 8ET	infant & Junior School	Eastney road	1	40	80	junction Essex road/Eastney Road	Dunbar Road	n/a	North	n/a	n/a	n/a	Clearance needed infront of the school to the main road	

Meon Junior School	54	Meon Road	Southsea	PO4 8NW	Junior School	Locksway Road	2	20	40	in the alley in front of the number 2	Shelford Road	n/a	west	n/a	n/a	n/a	Clearance needed infront of the school to the meon infant school
Meon Infant School	46	Shelford Road	Southsea	PO4 8NT	Infant School	Locksway Road	2	143	286	in the alley in front of the number 2	Shelford Road	n/a	west	n/a	n/a	n/a	Clearance needed infront of the school to the main road
Waterside School			Tipner			Locksway Road					n/a	n/a	n/a	n/a	n/a	n/a	No Waterside School
Moorings Way School	102	Moorings Way	Milton	PO4 8YJ	Infant School	Goldsmith avenue	2	92	184	in front of the school in the grass	Goldsmith Avenue	Junction Moorings Way/Golds mith avenue	south	n/a	n/a	n/a	Direct access from school to the main road (clearance needed just in front of the school)
Milton Cross Academy	3	James Road	Milton	PO3 6RB	Seconda ry School	Milton Road	1	75	150	in the school parking	James Road	Junction James Road/Milto n Road	south east	n/a	n/a	n/a	Clearance needed infront of the school to the main road
Penhale infant school	51	Penhale road	Fratton	PO1 5EF	Infant School	Fratton road	1	191	373	in front of the school on the parking spaces	Penhale Road	Junction Penhale road/Fratto n road	south				Clearance needed infront of the school to the main road
St John's Cathedral Catholic Primary School	2	Cottage View	Landport	PO1 1PX	Junior School	Arundel Street	1	22.2	64.38	grass of car park	Arundel Road	Junction Cottage View/Arund el Street	east				Clearance needed infront of the school to the main road
Ark Ayrton Academy	15	Somers Road	Southsea	PO5 4LS	Infant School	Isambard Brunel Road	1	91.3	200.8	at the end of Hyde Park road	lsambard Brunel Road	Junction Somers Road/Isam bard Brunel Road	north west				Clearance needed infront of the school to the main road
Priory School	21	Fawcett Road	Southsea	PO4 0DL	Infant School	Fawcett road	1	136	544	on the lage footway in front of the school	Fawcett Road	Junction Fawcett Road/Fawc ett road	west				Direct access from school to the main road (clearance needed just in front of the school)
Charter Academy		Hyde Park Road	Southsea	PO5 4HL								Junction Hyde Park Road/					n/a

					1	1					,	1		•	
St Edmunds School		Upper Arundel Street	Landport	PO1 1RX	Seconda ry	Arundel Street	1	126	390.6	in the school parking	arundel street	Junction Upper Arundel Street/Arun del Street	south		Direct access from school to the main road (clearance needed just in front of the school)
Arundel Court Infant School	199	Northam street	Landport	PO1 1JE	Infant School	Arundel Street	1	51.2	281.6	in the school parking	arundel road	Junction Northam street/Arun del Street	east		Clearance needed infront of the school to the main road
Arundel Court junior School	199	Northam street	Landport	PO1 1JE	Junior School	Arundel Street	1	51.2	281.6	in the school parking	arundel road	Junction Northam street/Arun del Street	east		same place like arundel court infant school
St George's Beneficial Church of England (Voluntary Controlled) Primary School	2	Hanover street	Southsea	PO1 3BN	Infant School	Queen Street	1	100.5	311.5 5	in front of the school there is a big footway area	hanhover street	Junction Hanover street/Quee n Street	east		Clearance needed infront of the school to the main road
Corpus Christi Catholic Primary School		Gladys Avenue	North End	PO2 9AX	Primary School										
Harbour School		Penhale Road	Fratton	PO1 5EF											
Harbour School	151	Milton Road	Milton	PO4 8LD											
Mary Rose School		Gisors Road	Southsea	PO4 8GT											
Victory Academy		Jubilee Avenue	Paulsgrove	PO6 4QW	Primary School										
Willows Centre for Children		Battenburg Avenue	North End	PO2 0SN											
Harbour School		Ranelagh Road		PO2 8HA											

Portsdown Primary School



Appendix E1

School Crossing Patrol Sites

School	Site
Admiral Lord Nelson	Anchorage Road
Arundel Court Infant & Junior	Arundel Street / Fyning Street
Charles Dickens Infant	Sultan Road / Malins Road
Charles Dickens Infant	Turner Road / Wingfield Road
Charles Dickens Infant	Turner Road / Watts Road
City Boys	London Road Hilsea
City Boys	London Road Hilsea
City Girls	St Mary's Road
City Girls	St Mary's Road
City Girls	St Mary's Road
College Park Infant & Junior	Lyndhurst Road / Stubbington Avenue
College Park Infant & Junior	Lyndhurst Road / Kirby Road
College Park Infant & Junior	Lyndhurst Road / Kirby Road
College Park Infant & Junior	Mayfield Road / Randolph Road
College Park Infant & Junior	Crofton Road
Copnor Infant & Junior	Copnor Road / Wallington Road
Copnor Infant & Junior	Copnor Road / Burrfields Road
Corpus Christi	Gladys Avenue / Connaught Road
Corpus Christi	North End Junction
Cottage Grove Primary	Green Road / Cottage Grove
Cottage Grove Primary	Green Road / Somers Road
Cottage Grove Primary	Eldon Street
Court Lane Infant & Junior	Court Lane / Lonsdale Avenue
Court Lane Infant & Junior	Central Road / Lower Drayton Lane
Court Lane Infant & Junior	Tregaron Avenue / Dysart Avenue
Court Lane Infant & Junior	Salisbury Road / Magdala Road
Court Lane Infant & Junior	Court Lane / Hilary Avenue
Court Lane Infant & Junior	Court Lane / Hilary Avenue
Craneswater Junior	St Ronans Road
Craneswater Junior	Albert Road / St Ronans Road
Craneswater Junior	Festing Road / Highland Road
Craneswater Junior	Festing Road / Highland Road
Craneswater Junior	Highland Road / Winter Road
Devonshire Infant & Fernhurst Junior	Francis Avenue / Jessie Road
Devonshire Infant & Fernhurst Junior	Francis Avenue / Jessie Road
Devonshire Infant & Fernhurst Junior	Heidleburg Road / Devonshire Square
Devonshire Infant & Fernhurst Junior	Jubilee Road / Devonshire Square
Devonshire Infant & Fernhurst Junior	Jubilee Road / Devonshire Square
Flying Bull Primary	Malins Road
Gatcombe Park Primary	Copnor Road / Old London Road
Gatcombe Park Primary	St Barbara Way / Copnor Road
Goldsmith Infant School	Bramble Road / Fawcett Road
Goldsmith Infant School	Jessie Road / Fawcett Road

School	Site
Goldsmith Infant School	Jessie Road / Talbot Road
Highbury Primary	Highbury Grove / Dovercourt Road
Highbury Primary	Chatsworth Avenue / Dovercourt Road
King Richard	Allaway Avenue
Langstone Infant	Milton Road / St Mary's Road
Langstone Infant	Milton Road / St Mary's Road
Langstone Infant	Milton Road / Baffins Road
Langstone Infant	Milton Road / Baffins Road
Langstone Junior	Lakeside Avenue / Hayling Avenue
Manor Infant	George Street / Ernest Road
Manor Infant	Inverness Road / New Road
Medina Primary	Medina Road / Sixth Avenue
Meon Infant	Hollam Road / Meon Road
Meon Infant	Shelford Road / Meon Road
Meon Infant	Locksway Road / Shelford Road
Meon Junior	Crofton Road / Meon Road
Meon Junior	Euston Road / Warren Avenue
Meredith Infant	Drayton Road / Chichester Road
Meredith Infant	Drayton Road / Powerscourt Road
Meredith Infant	Chichester Road / Farlington Road
Milton Cross	Velder Avenue
Milton Park Primary	Eastney Road / Dunbar Road
Milton Park Primary	Dunbar Road
Moorings Way Infant	Moorings Way / Warren Avenue
Newbridge Junior	New Road / Aylesbury Road
Newbridge Junior	George Street
Newbridge Junior	George Street / Shearer Road
Newbridge Junior	Shearer Road / Hampshire Street
Northern Parade Junior	Kipling Road / London Road
Northern Parade Junior	Kipling Road / London Road
Northern Parade Infant & Junior	Doyle Avenue
Paulsgrove Primary	Allaway Avenue / Walford Road
Paulsgrove Primary	Allaway Avenue / Marsden Road
Penhale Infant	Penhale Road / Guildford Road
Portsdown Primary	Southampton Road
Portsdown Primary	Southampton Road
Portsdown Primary	Sevenoaks Road / Hythe Road
Priory	Fawcett Road
Saxon Shore Infant	Jubilee Avenue / Connaught Lane
Saxon Shore Infant	Jubilee Avenue / Portsdown Road
Solent Infant & Junior	Solent Road / Farlington Avenue
Solent Infant & Junior	Havant Road / Galt Road
Solent Infant & Junior	Havant Road / Station Road
Somers Park Primary	Somers Road / Blackfriars Road
Southsea Infants	Albert Road Traffic Lights
Southsea Infants	Albert Road Traffic Lights
Southsea Infants	Albert Road / Napier road
St George's Primary	Queen Street / Cross Street

School	Site
St John's Primary	Arundel Street / St Johns Road
St Jude's Primary	Pembroke Road
St Jude's Primary	St Georges Road / High Street
St Jude's Primary	High Street
St Paul's Primary	Allaway Avenue / Bourne Road
St Swithin's	Clarendon Road / St simon's Road
Stamshaw Infant	London Avenue / Stamshaw Road
Stamshaw Infant	Stamshaw Road / Wilson Road
Stamshaw Infant	Gladys Avenue / North End Avenue
Stamshaw Junior	Walden Road / Walker Road
Stamshaw Junior	Tipner Road /
Westover Infant	Westover Road / Tangier Road
Westover Infant	Westover Road / Tangier Road
Westover Infant	Neville Road / Tangier road
Westover Infant	Westover Road
Westover Infant	Westover Road / Cobden Avenue
Wimborne Infant & Junior	Goldsmith Avenue / Winter Road
Wimborne Infant & Junior	Wimborne Road / Winter Road
Wimborne Infant & Junior	Devonshire Avenue / Winter Road
Wimborne Infant & Junior	Devonshire Avenue / Prince Albert Road

Appendix E2

Detailed identification of FW leading to Transport Hubs

Please note that for each Transport hub identified below, Colas hold electronically a detailed map describing location of the FW to be treated and recommended snow pile locations.

	2 (1) (8 (1))		A Service State of the		Annual MV	E.A. 18.11	Closest C	Wittensted	Distance from	Total area	Snow storage			Description	of path to clear			
Category	Name	Address / Location	Street	District	Postcode	Use	Cidsest C	vv treated	main road to	(sqm) to treat	location		From junction between			From junction between		Comments
							Road	Category	gate (im)	(-4.0		Road	Road	Side	Road	Road	Side	
	Hayling Island		Ferry Road	Eastney and Craneswat	P09 4LT	Ferry Port	Ferry Road	2	173	519	Greenspace							No footway
	Hovercraft Terminal		Clarence Esplanade		PO5 3AD	Ferry Port	Clarence Esplanade	1	276	626								
	Gunwharf Ferry Port		Gunwharf Road	St Thomas		Ferry Port	Gunwharf Road	1	240	480	Space on the car park		Entrance and Exit of ferry port	West (30m)		Footway in front of car park	East (210 m)	
erry terminal	Continental ferry port footway	around the peninsular house	Wharf road	Newport		Footway	Mile end road	1	198	653.4	on the footway behind the house	Wharf road		N/A				clearence needed only on footway
	Continental ferry port footway	font of lok'nStore	Wharf road	Newport		Footway	Wharf road	1	136.1	272.2	in the grass in front of the lok'nStore	Wharf road		west				clearence needed only on footway
	Continental ferry port footway	front of the car park	Wharf road	Newport		Footway	Wharf road	1	165.4	297.72	next to the welcoming sign & yellow barrier	Wharf road		south			4	clearence needed only or footway
	Continental ferry port footway	small footway on the road	Wharf road	Newport		Footway	Wharf road	1	39	39	next to the welcoming sign & yellow barrier	Wharf road		west				clearence needed only on footway
	Gunwharf Bus Station		The Hard	Charles Dickens	PO1 3PA	Bus Terminal	The Hard	1	650	975	Espace near the entrance of train station / End of bus platform		Bus Station	250 m		Taxi area	320 m	
	Cosham bus park	i	walton road	cosham	po6 1	Bus parking	waiton road	2	160.8	297.48	on the car park	walton road		south	walton road		east	clearence needed in from the bus parking
	Cosham bus station 1	í	northen road	cosham		bus station	northen road	1	52.5	157.5	on the footway	northen road		east				clearence needed in fro the bus station to zeb crossing
us Terminal	Cosham bus station 2	ĭ	northen road	cosham	,	bus station	northen road	1	39.9	159.6	on the footway	northen road		west				clearence needed in fro the bus station to zeb crossing
	London road bus station footway	in front of westerly services	London road	cosham		bus station	london road	1	193.1	849.64	behind the bus station, in the grass	London road		west				clearence needed in fro the bus station
Ì	London road bus station quay	front of westerly services	London road	cosham		bus station	london road	1.	92.3	387.66	behind the bus station, in the grass	London road		east				clearence needed in fro the bus station
	10 (10 th to 10 th to			-		-					Espace near the							same area than Gunwhar
	The Hard interchange		The Hard	Charles Dickens	PO1 3PA	Train Station	The Hard	31	190	285	entrance of train station Greenspace /							Station
	Southsea Train Station		Station Street	Charles Dickens	PO1 1EQ	Train Station	Station Street	1	506	1448	jonction with Station Street and Commercial Road							
	Fratton Train Station		Selbourne Terrace	Fratton	PO1 1EP	Train Station	Goldsmith Avenue	1	142	126								Bridge / jonction possible Fratton Road (166 m *
	Cosham Train Station		High Street	Cosham	PO6 3BD	Train Station	High Street	1	110	165	Greenspace / a lot of place in front of the pavement							
Train Station	hillsea station		airport service road	hillsea		platform length	airport service road	1	164	360,8	end of platform length			west	Ų.			clearernce needed on al lengths
	hillsea station		airport service road	hillsea		platform length	airport service road	1	164	360.8	end of platform length			east		Y21		clearernce needed on a lengths
	hillsea station		airport service road	hillsea		footway bridge	airport service road	1	23.7	40.29	Corner of the bridge			n/a				clearernce needed all of bridge
	hillsea station		airport service road	hillsea		access area	airport service road	1	13.2	172.92	On the grass			n/a		35		clearernce of all of the a
	hillsea station		airport service road	hillsea		footway to carpark	airport service road	1	66.9	113.73	on the grass			west				clearernce needed fro station to carpark footp

^{*} See example of map detail attached

Gunwharf Ferry Terminal



Appendix E3

Detailed identification of FW leading to PCC managed Residential Homes

Please note that for each Residential Home identified below, Colas hold electronically a detailed map describing location of the FW to be treated and recommended snow pile locations.

					Closest CW	trooted	Distance from	Total area				Description	of path to clear			
Name	Address / Location	Street	District	Postcode	Closest CW	ireateu	main road to	(sqm) to	Snow storage location		From junction between			From junction between		Comments
					Road	Category	gate (Im)	treat		Road	Road	Side	Road	Road	Side	
Edinburgh House		Sundridge Close	Cosham	PO6 3JL	Southampton Road	1	102	204								
Longdean Lodge And Day Centre	Junction Hillsey Road/ Beverston Road	Hillsley Road	Paulsgrove	PO6 4NH	Hillsley Road	1	60	120	Junction Hillsey Road/ Beverston Road	Longdean Lodge And Day Centre	Bus access	North (30m)	Longdean Lodge And Day Centre	Bus access	South (30m)	
Hilsea Lodge		Gatcombe Drive	Hilsea	PO2 0TX	London Road	1	45	135	Greenspace	London Road	Gatcombe	East				
Brunel Court		Nutfield Place	Charles Dickens	PO1 4JB	Lake Road	1	103	206		Nutfield Place	Clarendon Street	North (27m)	Clarendon Street	Lake Road	East (76m)	
Corben Lodge	(next door Shearwater)	Moorings Way	Milton	PO4 8QW	Moorings Way	2	150	68	Greenspace	Eastern Road						
Shearwater new building Crane Court & Osprey Court	opp Goodcompanion Pub	Moorings Way	Milton	PO4 8QW	Moorings Way	2	227	227	Greenspace/ layby	Eastern Road						
Russets		Gatcombe Drive	Hilsea	PO2 0TX	London Road	1	78	82	Greenspace							
Brent Court		Warren Avenue	Southsea	PO4 8QQ	Milton Road	1	278	152	Layby	Avocet Close	Plover Reach	Northside (73m)	Crofton Road	Shelford Road	South (79m)	
Caroline Square	Blossom Square	King William Street	Portsea	PO1 3JG	Queen Street	1	161	232	Parking Bay	Blossom Square 1-17	Footpath	West (63m)	Blossom Square 2-18	Footpath	East (63)	
Harry Sotnick House		Cranleigh Avenue	Buckland	PO1 5LU	St Marys Road	1 1	119	165	Parking Bay	Fourth Street	St Marys Road	South (119m)	Cranleigh Road		North (46)	
Maritime House	Victory Unit ConanRd/Doyle Ave entrance	Wylie Road	Hilsea	PO2 9DT	Northern Parade	e 1	2	300	Parking Bay	Conan Road	Doyle Ave	East (109m)	Conan Road	Northern Parade	North (40m)	

Hilsea Lodge Residential Home



Appendix F

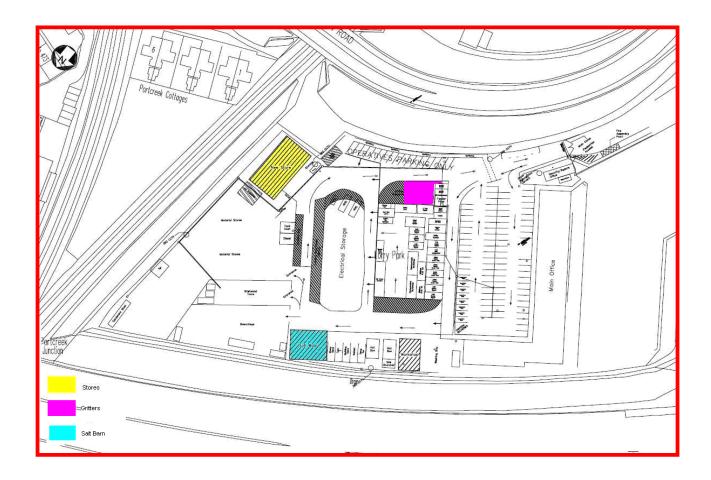
Equipment, store and salt barn location

All winter operations are directed and carried out from Colas depot located at Walton Road, Farlington, Portsmouth, PO61TA.

The rock salt is stored in a purpose built salt barn. The salt barn has a capacity of 850t that is to say 200t over the stock level recommended by the UK Road Liaison Group (July 2009) (stock necessary to treat the equivalent of 6 runs during 6 days on the priority network).

An additional storage capacity of 120t, in a non-covered storage bay, is available next to the salt barn to store an emergency reserve stock of salt or grit.

The following map identify the location where the gritters are stationed, the salt barn and reserve storage bay, as well as the storage building where the winter maintenance minimum resilience stock of shovels and brooms is kept.



Salt barn Storage capacity 850t



Storing bay (emergency use only) Storage capacity 120t



Appendix G

Winter Maintenance Preparation Plan

TO BE COMPLETED BY	TASK	ACTION BY
April	Start Wash-Up meetings (if necessary)	Colas / PCC Contracts Managers
June	Renewal of Weather Forecast contract if appropriate	Colas Commercial
July	Start revision of Winter Maintenance Operational Plan	Colas / PCC Contracts Managers
Early September	Issue revised Winter Maintenance Operational Plan	Contract Manager
Late September	Winter Maintenance Exercise/Communications Trial	Colas Winter staff
Early October	Winter Maintenance Briefing	Colas personnel involved in Winter Duties

Appendix H

Reference documents

- 1 Code of Practice for Maintenance Management
- 2 ICE Design and Practice Guide for Highway Winter Maintenance
- 3 Emergency Services Plans
- 4 Trunk Road Maintenance Manual
- 5 PCC Flood response Plan
- 6 The Resilience of England's Transport Systems in Winter (independent review interim report Dec 2010)
- 7 Colas Incident Management Plan
- 8 PCC Traffic Management Plan

Appendix I

Vehicles and Plant Schedules

The length of the routes covering the category 1 and 2 networks requires 3 vehicles to enable a response within a 2 hours period.

Colas fleet of gritters is composed of 4 vehicles (which includes a vehicle on standby as contingency to mitigate the risk of mechanical breakdown). All are Econ Engineering Bodies. Copies of the current vehicle calibration certificates are available on request.

4 of these vehicles are multipurpose vehicles which are dedicated to gritting during the winter season. All 4 vehicles are fitted with GPS MASTERNAULT tracking units which are connected to the ECON download units. This records the following information when vehicle are used as gritters:

- Vehicle Location and time
- Spreading on/off
- Salt Flow on/off
- Spread Rate
- Width of spread

The 4 vehicles are as follows:

1 x Dedicated Gritter Lorry: Reg 1RX55 UTO UNI-BODY



1 x Multi Purpose Vehicle: Reg RX55 UTM DEMOUNT (Converts to a tipper)



$2\ x$ Multi Purpose Vehicles: Reg KE06 AYC and Reg KE06 AYD UNIBODIES (converts into Traffic Management Vehicle)



Gritter Bodies and Equipment



3 X Gritting bodies



4 X Snow Ploughs

Footway Gritting and Snow Clearance:

Cruiser Turbocast 300 Grit Spreader:

Cruiser Turbocast 300 Grit Spreader broadcast spreads dry or wet grit/salt mixture to a width of between 3 and 7m. It is user friendly with front and back rests which make it easy to manoeuvre up and down kerbs. The front rest allows the unit to be emptied wheelbarrow fashion after use and the chassis has a special Armortec coating for corrosion-resistance. A range of settings allows accurate controlled dosing ensuring economic spreading. The gritter can be disengaged for transportation between sites without losing any material.



Pedestrian 2 Wheel Tractor Unit:





Appendix J

Winter Maintenance Exercise Checklist (to be updated with completed version once exercise complete)

Winter Maintenance Exercise Date	
----------------------------------	--

Lorry No.	Routes	Lorry & Driver Available	Spreading Insert Operational	Plough Fitted & Operational	Plans & Schedules Available	Comments
1	8,9,10,11,1 2,17,20,22, 23,25.					
2	2,3,4,13,14, 15,16					
3	1,5,6,7,18,1 9,21,24.					

1.	Superv	ision present in depot.	YES/NO
2.	Loading	g facility available in depot	YES/NO
3.	Client 0	Officer present	YES/NO
Che	cks com	pleted by:	
Cola	as:		(Signature)
			. (Print Name)
Clie	nt:		(Signature)
			. (Print Name)

Appendix K

Standard form and daily reports

This appendix includes the following standard forms:

- Notification of Proposed Treatment
- Daily Operational Report
- Route monitoring Sheet Priority 1&2

The forms should preferably be submitted by email. Where transmission is by email the originator and distribution details do not need to given as shown on the following pages as they will be included within the email.



Name:						Time:	Time:		
DECISION	BASED ON:-				Date			Time	
24 Hours N	Met Office Report:								
	ine Weather Station Ch	neck:							
Inspection:									
HCC:									
Area 3:									
Other:									
				1			1		
ACTIO	N TO BE TAKEN:			YES		NO		1	
								⊿	
Code	Description	Start Time	Spread Rate (g/m2			Cor	nments		
WM 01	Priority 1 Routes								
WM 02	Priority 2 Routes								
WM 03	Priority 1/2/3/4 Only								
WM 04	Frost Spots								
WM 05	Snow Plough								
WM M275	M275								
STANDBY									
FURTH	IER INSPECTION REG	QUIRED:	,	YES		NO			
]	
	mendation for Escala	itíon at th ⊤	ne time o		tion:-				
Level		1		2		3			
Stage		1		2		3			
Accepte	ed by PCC:	Yes		No				_	



To: Portsmouth City Council				Date:			-	Tim	e:			
Winter Maintenance Officer (Name):					<u> </u>							
Period Covered Dates:		From	1:						To:			
Period Covered Times:		From	n:						To:			
Operational Summary												
Route No		Propos	sed 7	Гrea	tmer	nt	Д	ctua	al Treatr	nent		Comments
	Ra	oread ate /m²)	Sta Tim		Fini Tim		Spre Rate (g/m	Э	Start Time	Fini: Tim		
FW Treatment Activity:									1			
Road Closures:												
Salt Stock remaining at 08	00 I	nours:						Sal	It Supply	y exp urs:	ect	ed in
Additional Comments:												-
Escalation Changes:												

ROUTE MONITORING SHEET – PRIORITY 1 & 2

Route / Vehicle 1	ate:
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ROUTE	FLEET NO	DRIVER	TIME ON	TIME OFF	LOAD	PLOUGH FITTED	SPREAD RATE	VEHICLE CONDITION/ PROBLEMS	COMMENTS
Priority 1									
1									
5									
6									
7									
M275									
Priority 2			1		I				
18									
19									
21									
24									
M275									

START WEIGHT:		FINISH WEIGHT:					
Driver's Signature upon completion							

ROUTE MONITORING SHEET – PRIORITY 1 & 2

Route / Vehicle 2	Date:
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ROUTE	FLEET NO	DRIVER	TIME ON	TIME OFF	LOAD	PLOUGH FITTED	SPREAD RATE	VEHICLE CONDITION/ PROBLEMS	COMMENTS
Priority 1									
2									
3									
4									
M275									
Priority 2			1	1	l				
13									
14									
15									
16									
M275									

START WEIGHT:	FINISH WEIGHT:
	Driver's Signature upon completion:

ROUTE MONITORING SHEET – PRIORITY 1 & 2

Route / Vehicle 3 Date: _____

ROUTE	FLEET NO	DRIVER	TIME ON	TIME OFF	LOAD	PLOUGH FITTED	SPREAD RATE	VEHICLE CONDITION/ PROBLEMS	COMMENTS
Priority 1									
8									
9									
10									
11									
12									
M275									
Priority 2									
17									
20									
22									
23									
25									
M275									

START WEIGHT:		FINISH WEIGHT:				
Driver's Signature upon completion:						

Appendix L

Snow Desk Content

The Snow Desk room shall contain the following equipment as a minimum;

- 1 PC / laptop with, email facilities, self sufficient broadband Internet access and network access to Colas company systems, email facilities
- 1 large scale street maps of the network showing termination points
- 1 large scale street maps of the network
- 1 laminated copy of the gritting routes
- 1 copy of the Network roads hierarchy map
- 1 copy of the current winter WMDO and WMSM rota
- 1 copy of the Code of Practice for Maintenance Management
- 1 copy of the ICE Design and Practice Guide for Highway Winter Maintenance
- 1 copy of the Emergency Services Plan
- 1 copy of the HCC Winter Maintenance Plan
- 1 copy of the emergency telephone contact list
- 1 copy of the Winter Service Plan
- 1 FM/MW Radio, main powered with battery backup
- 1 TV set
- 2 land line telephones

Appendix M

Section 8 Agreement between PCC & HCC

