Council of the Isles of Scilly

Highway Maintenance Manual

Council of the
ISLES OF SCILLY

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Version history

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February 2025	Version 1	Preliminary version with focus on core service standards for Safety and Serviceability
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Contents

Introduction

The Council's highway network is the likely to be its largest single asset.

The maintenance of a safe highway network is one of the primary duties placed on the Council as Highway Authority. This duty is set out in Section 41 of the Highways Act 1980 and guidance on the discharge of this duty is available in the national Code of Practice: 'Well Managed Highway Infrastructure' 2016.

This Highway Maintenance Manual (HMM) considers the guidance and requirements contained within the Code of Practice and sets the approach for a proportionate and risk-based approach to the management of the publicly maintainable highways which are the responsibility of the Council.

In the current financial climate, the management of risk is essential, both in determining appropriate responses to highway deficiencies and assessing the implications of investment decisions for asset management purposes. Critically, it must be noted that lack of financial resources is not an adequate defence under Section 58 of the Highways Act (special defence in action against a highway authority) and it is therefore important that all those involved in highway maintenance, including the Council of the Isles of Scilly members and senior management, have a clear understanding of their powers, duties and responsibilities.

Even in the absence of specific duties and powers, authorities have a general duty of care to users and the community to maintain the highway in a condition fit for its purpose. This principle should be applied to all decisions affecting highway maintenance works.

1.0 Highway Maintenance Manual

This Highway Maintenance Manual (HMM) sets out how the Council of the Isles of Scilly manages and risk assesses the maintenance of its highways to fulfil its statutory obligations and deliver a safe and serviceable highway network.

Highway maintenance objectives and recommendations are set out in national guidance documents and in particular the UK Roads Liaison Group Code of Practice "Well Managed Highway Infrastructure" published in October 2016. This document promotes an integrated risk-based approach to the management of all highway infrastructure taking into account the local circumstances and environment.

This HMM considers the national Code of Practice and a number of its 36 recommendations for highway authorities. It seeks to provide a transparent approach to safety and serviceability, taking account of the smaller scale and nature of use of the highway managed by the Council when compared to many other authorities.

The purpose of this highway maintenance manual is to set out the broad context for the delivery of an appropriate highway maintenance regime for the Council's network which takes account of its statutory duties, service aspirations and reflects as appropriate the availability of resources at its disposal.

1.1 Principles and objectives of highway maintenance

Highway maintenance should be based on a systematic logical approach taking note of legislation, guidance and local context and is a key component of a more broadly-based asset management approach.

The principles of a highway maintenance policy should be to:-

- deliver the statutory obligations of the authority.
- be responsive to the needs of users' and the community.
- contribute to effective asset management and maintain the asset value.
- support effective delivery of the statutory network management duty.
- support and add value to local transport objectives.
- support and add value to wider corporate policy objectives.

1.2 Components of a highway maintenance strategy

The foundations upon which this Highway Maintenance Manual has been developed are:

- A detailed inventory of relevant components of the asset
- A defined hierarchy for all elements of the network
- Levels of service linked to the core objectives of the Code of Practice

The influence of the core levels of service are described later for :-

- Safety – meeting statutory obligations and expectations for safety.
- Serviceability – ensuring availability and reliability.
- Sustainability – maximising value and minimising costs over time.

1.3 Network inventory

A detailed highway inventory is the foundation on which asset and risk management is built and is essential for establishing a cost effective and adequate maintenance regime.

The current inventory knowledge for the Council's key highways assets is as follows:-

Inventory Item	Quantity	Comment
Road hierarchy 3b (km)	8	
Road Hierarchy 4 (km)	1.5	
Road Hierarchy 5 (km)	2.5	
Road Hierarchy 6 (km)	0.75	
Footway Hierarchy 1 (m)	2300	
Footway Hierarchy 2 (m)	1800	
Footway Hierarchy 3 (m)	2500	
Footway Hierarchy 4 (m)	1000	
Gullies/manholes/silt traps (no.)	100	
Drainage ditches (m)	300	
Length of piped drainage (m)	3500	Estimated
Traffic signs (no.)	8	
Junction markings (no.)	30	
Streetlights (no.)	80	
Bollards (no.)	2	Illuminated
Pedestrian railings (m)	75	@ Old School and Garrison Lane
Slipways	7	

This plan addresses the operational levels of service (safety, serviceability, sustainability) for the following highways inventory :-

Carriageways	Railings	Verges & landscaped areas	
Footways	Traffic signs	Drainage	Road markings

1.4 Network hierarchy

The concept of a road maintenance hierarchy is the basis of a coherent, consistent and auditable maintenance plan and approach to asset management.

The Code of Practice recommends that '*hierarchies be defined which include all elements of the highway network including carriageways, footways, cycle routes, structures, lighting and rights of way. It should take into account the current and expected use, resilience, and local economic and social factors such as industry, schools, hospitals and similar as well as the desirability of continuity of a consistent approach for walking and cycling.*

In short, this hierarchy should reflect the needs, priorities and actual use of each road and will be the main tool in determining priorities, maintenance standards and performance.

This Manual considers only the carriageways and footways which fall within the Council's list of streets and footways which are considered to be highways maintainable at public expense (given in Appendix A). These networks have been reviewed against the national guidance which is given in the following tables, and assigned accordingly.

1.4.1 Carriageway Hierarchy

1.4.1 Carriageway Hierarchy		
Carriageway Maintenance Category	Hierarchy Description	Type of Road / General Description
1 Motorway	N/A	
2 Strategic Route	N/A	
3a Main Distributor	N/A	
3b Secondary Distributor	B & C class roads and some unclassified urban routes carrying bus, HGV and local traffic with frontage access and frequent junction	In residential areas these have 20 or 30mph speed limits and high levels of pedestrian activity. In rural areas these roads link villages.
4 Link Road	Roads linking the main and secondary distributor roads	In urban areas these are residential or industrial interconnecting roads with 20 or 30mph speed limits, random pedestrian movements and uncontrolled parking. In rural areas these roads link smaller communities to the distributor roads and are not always capable of carrying two-way traffic
5 Local Access Road	Roads serving a limited number of properties and carrying access only traffic	In rural areas these roads serve small settlements and individual properties, often single lane width and not suitable for HGV's. In urban areas they are often residential loop roads and cul de sacs.
6 Minor Road	Typically lanes and tracks	Little used roads, often unsuitable for normal traffic, but may be used as a footpath, equestrian use or part of a cycle trail

1.4.2 Footway hierarchy

1.4.2 Footway Hierarchy		
Footway Maintenance Category	Hierarchy Name	Description
1	Primary Walking Route	Busy urban shopping and business areas, and main pedestrian route
2	Secondary Walking Route	Medium usage routes through local areas and routes serving schools, shopping areas etc.
3	Link Footways	Linking local access footways through urban areas and busy rural footways
4	Local Access Footways	Footways associated with low use, including short estate roads linking to main roads and cul de sacs

The description and assignment may be periodically reviewed and adjusted as appropriate depending upon any changes of use and function.

1.5 Levels of service and investigatory levels

The core levels of service governing the Council's approach to management of the highway are:

- Network safety
- Network serviceability
- Network sustainability

Every aspect of highway maintenance has the potential to contribute towards the core objectives. For example, the contribution to the safety objective of the carriageway surface is affected by:

- actual condition of the surface
- response time for reacting to inspections and user concerns
- effectiveness of the materials and treatments used

There are several types of maintenance that contribute to the core objectives, namely :-

1.5.1 Reactive maintenance

Reactive maintenance is undertaken in response to inspections, complaints or emergencies. The action taken may vary depending upon the nature of the defect.

- All assets - sign and /or guard making safe for safety purposes
- All assets - provide initial temporary repair for safety purposes
- All assets - provide permanent repair for safety purposes

1.5.2 Routine maintenance

Routine maintenance is that maintenance which is carried out on a regular basis, as given in Section 3: Table 3.1.2

1.5.3 Programmed maintenance

Programmed maintenance consists of works which form part of a capital programme and primarily consists minor works, replacement and reconstruction of assets. The programming of these will be dependent upon prioritisation within available funding.

1.6 Maintenance options

It is recognised that each element of the highway will have a differing lifecycle from creation and maintenance through to expiry. The treatment options chosen will have an impact on that lifecycle and in achieving the core service levels of safety, serviceability and sustainability. They should also seek to protect or improve the asset value.

Within the lifecycle of the asset there are a variety of treatments which will provide for short, medium and long-term maintenance options. These treatment options will invariably be informed by the availability of resources at the time and consideration should be given to the most cost effective long term option. The specification for construction, choice of materials and quality of workmanship are key to ensuring achievement of the desired outcome.

2.0 Highway inspection & condition assessment

The inspection types and condition assessment methods featured in this section of the HMM are based on recommendations made in the Code of Practice: "Well Managed Highway Infrastructure". Both the inspection types and condition assessment methods have been amended to reflect local circumstances and have been based on historic experience of the network and defects.

2.1 Inspections, assessment and monitoring

An effective regime of inspection, assessment and recording is the most crucial component of an effective highway maintenance strategy and forms part of an authority's defence against third party liability claims.

It will also provide the basic condition data for the development of capital maintenance programmes as part of an asset management approach. All elements of the inspection and assessment regime should be applied systematically and consistently. This is particularly important in the case of network safety, where information may be crucial in respect of legal proceedings. It is important to recognise, however, that all information recorded, even if not primarily intended for network safety purposes, may have consequential implications for safety and may therefore be relevant to legal proceedings.

Equally important is the recognition that, following the introduction of the Freedom of Information Act 2000 and the Environmental Information Regulations 2004, all records are potentially available for public inspection and reference.

The Council will implement an inspection regime in line with the recommendations of the Code of Practice and this is detailed in the following sections which define the frequency of inspections, items to be recorded and responses dependent upon risk assessment.

2.1.1 Safety inspections

These inspections are undertaken to meet the key objective of network safety. They are used to identify defects likely to be hazardous or cause serious inconvenience to highway users or the communities served. The actual risk of danger will be assessed on site and each defect allocated an appropriate defect category. These defects will normally initiate a response to make safe through warning notices, coning off or fencing off to secure the hazard or carrying out reactive maintenance. The safety inspection will include a combination of walked and driven inspections.

2.1.2 Service inspections

The service inspection is intended to meet the key objective of network serviceability and forms a significant input to asset management and programmes of work. Service inspections comprise of a detailed inspection tailored to identify issues that may have an effect on the reliability and ease of use of the road network and will normally initiate scheduled or programmed maintenance.

The service inspection may be carried with a combination of walked, cycled and driven inspections.

2.1.3 Specialist inspections

Specialist inspections comprise of more detailed specific inspections of particular highway elements, with regard to the key objectives of network serviceability and sustainability and are used to identify programmed maintenance requirements.

It will often be necessary for inspectors to have specialist knowledge in a particular field and may require the use of specialist advice and equipment.

It should be noted that the availability of budgets will dictate the level of specialist inspections undertaken.

2.1.4 Reactive inspections

Reactive inspections are carried out as a result of public reporting to verify any defect arising, and they will normally be carried out before the end of the next working day.

Defects verified through this reactive inspection will be dealt with as if the defect was found as part of a scheduled inspection. Records of times of receipt of any report, inspection and action will be retained.

2.2 Condition assessment

Condition surveys are primarily intended to identify deficiencies in the highway infrastructure which, if left untreated, are likely to adversely affect its long-term performance and serviceability.

This largely applies to the condition of carriageways for which a specialist survey vehicle is required to assess the condition of roads against nationally prescribed criteria and thresholds for profile variations (unevenness), rutting, texture of road surface and cracking. This is known as a SCANNER survey and the results of the survey provide a measure against National Indicators.

Commissioning of specialist carriageway surveys will be subject to availability of additional funding and form part of a long-term investment planning approach.

Similarly, a specialist inspection of footways is referred to as a Detailed Visual Inspection (DVI) which captures of defects against prescribed criteria and provides an assessment of the overall asset condition.

2.3 Risk assessment

Whenever a safety, service or specialist inspection is undertaken the basic principles of risk assessment are carried out of any observed defects and for any proposed remedies.

With regards to responses to individual hazardous defects a judgement can be made by evaluating them in terms of their significance, the likely impact should an incident occur and the probability of it actually happening.

Any items identified with a defect level which corresponds to or is in excess of the suggested defect investigatory levels in Appendix B, should be assessed taking into consideration the degree of deficiency, local traffic conditions and the location within the highway network.

Further additional assessments may also need to be undertaken, with respect to any remedial actions or required works, to enable safe working procedures to be adopted.

2.4 Type and frequency of safety inspections

The inspection regime takes account of potential risks to all road users and in particular those most vulnerable. To achieve this, inspection types and frequencies have been based on :-

- the road maintenance hierarchy which takes into consideration the needs, priorities and actual use of each part of the network; and
- analysis of any historic local highway issues.

The inspection regime will be subject to reviews to ensure changes in network characteristics and use are reflected and updated accordingly.

Each inspection could be critical to the safety of users of the highway and may also potentially be subject to legal scrutiny in the event of an accident occurring at or near the site. Complete and accurate records are therefore essential. It will be necessary for those undertaking inspections to judge whether any individual observed defect / hazard should be recorded as urgent defect and the consequent urgent action initiated.

The following tables indicate the type of safety inspection required (walked or driven) and the designated inspection frequency. Driven safety inspections should be undertaken from a slow-moving vehicle, taking into consideration other users of the highway.

2.4.1 Carriageway safety inspection

2.4.1 Carriageway Safety Inspections		
Carriageway Maintenance Category	Frequency	Type
3b Secondary Distributor	Monthly	Driven
4 Link Road	3 Monthly	Driven
5 Local Access Road	3 Monthly	Driven
6 Minor Road	6 Monthly	Driven

2.4.2 Footway safety inspection

2.4.2 Footway Safety Inspections		
Footway Maintenance Category	Frequency	Type
1 – Primary route	Monthly	Walked
2 – Secondary route	3 Monthly	Walked
3 – Link	6 Monthly	Walked
4 – Local Access	6 Monthly	Walked

2.4.3 Safety inspection tolerance

It is accepted that some inspections will not be achievable due to unforeseen circumstances or extreme weather conditions. If this should occur, details of the event should be made against the appropriate inspection record.

2.4.3 Safety Inspection Tolerance	
Frequency	Tolerance
Monthly	+/- 6 days
3 Monthly	+/- 15 days
6 Monthly	+/- 15 days

2.5 Type and frequency of service inspections

Service Inspections are primarily intended to identify issues that may have an effect on the reliability and ease of use of the road network. They form an integral part of the asset management regime by identifying and prioritising programmes of routine work on the highway network.

Any safety defects encountered during a service inspection will be dealt with in accordance with the safety inspection procedures.

All carriageways and footways will receive an annual walked or cycled (as appropriate to the network inspected and risk assessed) service inspection.

2.5.1 Service inspection tolerance

A tolerance of +/- 30 days is allowed on annual service inspection not be achievable due to unforeseen circumstances or extreme weather conditions.

2.6 Specialist Inspections

Specialist inspections may be required for particular highway assets where a normal service inspection would not be sufficiently detailed and/or where the item requires more specialist surveying knowledge. They will require a risk-based approach to identify issues critical to the network performance and with regard to the key objectives of network serviceability and sustainability, with frequency determined via Service Inspections.

2.7 Inspection standards

To support an ongoing risk based approach Inspectors must be able to demonstrate competence through relevant and recognised training or be suitably qualified through a recognised body.
For specialist inspections it will often be necessary for appointed inspectors to have specialist knowledge in a particular field.

2.8 Inspection records

For both safety and service inspections it is necessary to record details of the inspection, irrespective of whether there are any defects or not. The information to be recorded includes:

- The inspection route
- Street / section within the route
- Date of inspection
- Name of inspector
- Weather and road conditions

When a defect is found additional information to be recorded includes:

- More specific location details
- Type and nature of defect, including photo(s)
- Date and time located
- Action / remedial work

This information will be stored within a database in a systematic format, with a date verified.

2.9 Inventory set items to be inspected during safety and service inspections

Safety and service inspections will generally only include the extent of the inventory item that is visible from the carriageway or verge. A standard schedule of all possible items which could be inspected is given in the following table.

2.9 Inventory items to be inspected during Safety and Service Inspections	
Inventory Set	**Inventory Items**
Carriageways	Carriageway
	Island
	Parking bay
	Kerbing
	Channels
Footways	Footway
	Kerbing
	Bus stop infrastructure
Drainage	Gully
	Manhole/Catchpit
	Ditch
	Grip/Piped grip
	Piped drainage
	Small culvert
	Soakaway
Verges	Verge
	Trees
	Hedge
Railings and walls/fences	Third party walls/fences
	Pedestrian guard rails
Traffic Signs	Signs
	Bollards
	Hazard posts
	Finger posts
	Marker stones
Road Markings	Longitudinal markings
	Junction markings
	Hatched markings
Streetlighting	Streetlights
Utility apparatus	Covers, frames and boxes

If during a safety inspection a utility company defect is identified that does not comply with the local authority's policy for network safety, it will be recorded and Notice served under Section 81 of NRSWA (1991) requiring remedial action to be undertaken by the respective utility company.

2.10 Defects

Relevant defects and treatments are listed in the Appendix C. Dimensions are not to be regarded as prescriptive nor the list of defects and defect categories exhaustive or

mandatory. Each defect must be assessed individually and assigned an appropriate defect category based upon the risk assessment process outlined.

2.11 Defect categories and response times

Having identified a defect, the inspector will be required to risk assess when remedial action will be necessary and to make recommendations on what work is required and record their decisions. The categories below describe the level of condition and the level of response to be provided for each defect. When temporary signing or guarding is employed to make safe, further remedial works should be undertaken to enable the removal of the signing and guarding within 28 days, unless there are exceptional circumstances, which should be recorded and form a revised approach.

2.11 Defect Categories and response times			
Description		Defect Category	Response Time
Category 1 defects require prompt attention because they pose an immediate or imminent hazard with a corresponding high level of probability	Urgent	Cat 1	Make safe within 48 hours
Category 2 defects have safety implications less significant than Category 1, or have an effect on the reliability, quality and ease of use of the road	Essential	Cat 2.0	Make safe or repair within 7 days
		Cat 2.1	Make safe or repair within 28 days
Category 2.2 refers to non-urgent or hazardous 'defects' which are desirable to address, but not within a specific time period. These will be noted and form part of a future works programme depending upon availability of funding and resources	Desirable	Cat 2.2	Add to future work programmes

2.12 Risk evaluation

All defects identified through the inspection process may be evaluated in terms of their significance, which means assessing the likely impact should an incident occur and the probability of it actually happening.

2.12 Risk Matrix Table						
Risk Matrix		**Probability**				
		1 Remote	2 Unlikely	3 Possible	4 Probable	5 Certain
Impact	1 None	1	2	3	4	5
	2 Minimal	2	4	6	8	10
	3 Limited	3	6	9	12	15
	4 Moderate	4	8	12	16	20
	5 Catastrophic	5	10	15	20	25

Hazard is something with the potential to cause harm.

Risk is the likelihood or chance of that harm occurring.

2.13 Risk impact

The impact of a risk occurring can be quantified on a scale 1 to 5

1	None
2	Minimal
3	Limited
4	Moderate
5	Catastrophic

Consideration can be given to the extent of damage or injury likely to be caused if an incident occurred. The impact is likely to change with different defects, the amount and type of traffic and increasing speeds.

2.14 Risk probability

The probability of a risk occurring can be quantified on a scale 1 to 5

1	Remote
2	Unlikely
3	Possible
4	Probable
5	Certain

2.15 Defect risk management

Risk Factor = Impact x Probability

Having identified a particular hazard, the defect category and response time can be allocated based on the assessment of risk in relation to the likely impact and probability of an incident occurring. Generally, a Risk Factor => 16 would be considered as a Category 1 defect.

All defects therefore need to be carefully assessed and appropriate actions applied in order to make safe and maintain the highway network in a serviceable condition in relation to its use.

3.0 Service standards

Levels of service are primarily determined by the Council's statutory obligations to mitigate risk to those using their network and to promote core corporate objectives. The requirement to provide a safe, serviceable and sustainable network in relation to its use underpins service standards namely what, when and how highway maintenance is delivered.

3.1 Highway maintenance levels of service

The table below illustrates how the levels of service are used to structure service standards, set outputs and highlight the risks to the network, the service user and the Council.

3.1.1 Objectives, standards & impacts

		Objective	**Standard/Provision**	**Works Output**	**Risk**	**Impact**
Safety, serviceability and sustainability issues		*Comply with statutory obligations, provide network safety, serviceability and sustainability and inclusive of a fully integrated customer service.*	Fully comply with code of practice and adherence to notes for guidance. Asset management techniques applied to optimise whole life costs. Areas for targeted treatment identified, prioritised and long-term programmes created. Routine and Programmed maintenance undertaken.	Safety works carried out to meet statutory obligation. Longer term programmes of capital works carried out.	Larger works programme will lead to decrease in network availability whilst works undertaken. Environmental risk of increased material usage and carbon usage.	Highway network maintained to meet all the requirements of safety and serviceability together with addressing Sustainability issues
Safety related and serviceability issues		*Comply with statutory obligations; provide network safety and serviceability issues, based on asset management objectives.*	Areas for targeted treatment identified, prioritised and short-term programmes created. Routine and programmed maintenance undertaken.	Safety works carried out to meet statutory obligation. Short term programmes of capital works carried out.	Highways safety and wider network treatment leading to asset damage. Demand and programmed based works carried out a high to medium increase in cost. Some environmentally friendly treatments.	Increase in highway defects, with potential for third party insurance claims. Increase in maintenance backlog.
		Comply with statutory obligations; provide network safety and serviceability issues.	Areas for targeted treatment identified and prioritised. Routine and programmed maintenance undertaken.	Safety works carried out to meet statutory obligation. Restricted programmes of capital works carried out.	Highways safety issues repaired, and inconsistent treatment strategy will lead to asset damage. Demand and programmed based works carried out a high to medium cost. Less environmentally friendly treatments.	Increase in highway defects, with potential for increase of third party insurance claims. Increase in maintenance backlog.
Safety related issues only		*Comply with statutory obligations and to provide network safety.*	Provision of reactive maintenance in response to inspections, complaints or emergencies.	Safety works carried out to meet statutory obligation.	Only highway safety issues addressed will lead to asset damage and loss. Demand based works carried out at a higher cost. Non-environmentally friendly treatments.	Increase in highway defects, with increase of third party insurance claims. Increase in maintenance backlog.

Reference to this table can be made to demonstrate the overall level of service and compliance provided by the Council. This will invariably be part of the corporate budgetary and risk management processes.

3.1.2 Maintenance Activities and Frequencies

More detailed levels of service for each road hierarchy are described below.

Table 3.1.2 gives typical maintenance activities and treatment types used, together with frequencies.

3.1.2 Maintenance Activity and Frequency		
Hierarchy 3b	**Activity**	**Frequency**
Reactive Maintenance	All – from safety inspections	As scheduled
	All – from customer reports	Ad hoc (& verified)
Routine Maintenance	Gully Emptying	Minimum 1 in 12 months
	Other drainage – ditches, grips	Minimum 1 in 12 months
	Verge cut for visibility	Minimum 1 per year
	Environmental verge cut	Minimum 1 per year
	Amenity verge cut	As required - growth and location
	Invasive weed treatment	As required
	Sweeping (for safety/sustainability)	As required
Planned Maintenance	Carriageway surface treatment	Prioritised programme
	Footway surface treatment	Prioritised programme
	Repairs to drainage systems	Prioritised programme
	Edge maintenance - siding	As required – rural roads only
	Signs & Lines renew/replace	Prioritised programme
Hierarchy 4 & 5	**Activity**	**Frequency**
Reactive Maintenance	All – from safety inspections	As scheduled
	All – from customer reports	Ad hoc (& verified)
Routine Maintenance	Gully Emptying	Average 1 in 24 months
	Other drainage – ditches, grips	Average 1 in 18 months
	Verge cut for visibility	Minimum 1 per year
	Environmental verge cut	Minimum 1 per year
	Amenity verge cut	As required - growth and location
	Invasive weed treatment	As required
	Sweeping (for safety/sustainability)	As required
Planned Maintenance	Carriageway surface treatment	Prioritised programme
	Footway surface treatment	Prioritised programme
	Repairs to drainage systems	Prioritised programme
	Edge maintenance - siding	As required – rural roads only
	Signs & Lines renew/replace	Prioritised programme
Hierarchy 6	**Activity**	**Frequency**
	All – from safety inspections	As scheduled
	All – from customer reports	Ad hoc (& verified)

4.0 Winter Service

4.1 Statutory basis

The statutory basis for Winter Service in England and Wales is addressed through Section 41 (1A) of the Highways Act on the 31st October 2003, by Section 111 of the Railways and Safety Transport Act 2003.

The first part of Section 41(1) reads:

a) The authority who are for the time being the Highway Authority for a highway maintainable at the public expense are under a duty, subject to subsections (2) and (4) below, to maintain the highway.

b) (1) In particular, a Highway Authority are under a duty to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice.

Section 150 of the Highways Act 1980 also imposes a duty upon authorities to remove any obstruction of the highway resulting from 'accumulation of snow or from the falling down of banks on the side of the highway, or from any other cause'.

4.1.1 Objectives and standards

The winter service can contribute significantly to other highway maintenance objectives as follows:

- **Safety**: a prime consideration for winter service.
- **Serviceability**: maintaining availability and reliability of the highway network is a key objective for the winter service and one where user judgements of performance will be immediate rather than longer term.
- **Sustainability**: low temperatures and the formation of ice can cause serious damage to the fabric of the road, which in turn impacts upon whole life costs.

Given the financial constraints and other resources involved in delivering a winter service it is not practicable either to provide the service on all parts of the network or to ensure that road surfaces are kept free of ice or snow at all times.

It is therefore important to develop policies and operational plans defining the extent of the service, based on principles of risk assessment and to ensure that they are publicised and understood, especially by users.

4.2 Isles of Scilly Climate and Risk

Analysis of Met Office records from the weather station based at St. Mary's Airport confirms that over the period between January 2014 and February 2025 there were just two occasions of sub-zero air temperatures recorded. These occurred between 27 February and 2 March 2018 (4 days) and again on 18 March 2018. They were associated with the same national winter weather event arising from the east and resulted in a minimum of -2.2 degrees Celsius being recorded.

This record (over 11 years) demonstrates that the risk to the travelling public from ice and snow being present on the Council's roads is extremely low.

4.3 Winter Service Operation

A typical winter service operation which seeks to undertake a precautionary treatment (i.e. the application of salt onto roads before the onset of forecast freezing conditions), requires the following:

- A dedicated weather forecast provider
- Road weather stations which monitor road surface temperature and weather conditions
- A defined road salting network (higher category roads +)
- A supply of quarried salt
- A dry and environmentally secure salt barn
- Road spreading vehicles / apparatus
- Salt loading plant and washdown facility

When considering the above in relation to the Council's 8km of Category 3b priority roads (out of 13km total road length), combined with the historically low risk of ice and snow, it is considered that the provision of a planned reactive service operation is appropriate.

4.3.1 Service scope

The Council's reactive winter service will be provided between 1 November and 31 March.

In the event of ice or snow, any treatment will prioritise the 3b category roads.

Weather monitoring to predict whether there is a risk of ice or snow will be via publicly available Met Office forecasts and the Council will aim to publicise any forecast freezing conditions and advice which may affect the travelling public.

4.3.2 Operation and Treatment

Depending upon the severity and extent of icy conditions the winter service operation will include the application of a reactive treatment and/or use of warning signs.

The reactive application of salt or grit to roads will be undertaken if ice is present and temperatures were consistently below freezing overnight and are expected to extend beyond 08:00 hours (based on the forecast).

In some situations warning signs may be used, whilst for others it may be more effective to apply sand/grit to ice on the road, for which the Council will establish appropriate sources.

Resources will be deployed on a risk-based approach to areas where there are reports of ice on the road, then to areas where there is a likelihood of ice being present or forming due to topography, seepage of groundwater and aspect.

In the event of snow which has settled on a freezing road and is deemed to be causing a risk, clearance will be undertaken by hand and mechanical means as resources and operational safety factors allow.

The treatment of other roads and footways will not be undertaken, other than in exceptional circumstances (for example a prolonged and severe weather event).

4.3.3 Decision making

Each year a Duty Co-Ordinator will be appointed from the Council's Environment Service to ensure the preparation and readiness of resources required to fulfil the policy. They will also review lines of communication with relevant other services (including emergency services, transport and school).

The Duty Co-ordinator will monitor forecasts between the period stated, and when overnight forecast temperatures are below freezing undertake a patrol of the 3b road network by 07:00 hours in order to assess risk and determine any actions necessary. Records will be kept of such occasions.

Appropriate training is considered prudent to keep informed of latest national guidance and operational best practice. This could be via online attendance at seminars, demonstrations and other authorities training events.

4.3.4 Health & Safety

Safe working procedures will be in place and relevant staff briefed on operational arrangements and risks.

4.3.5 Salt storage

The Council will hold a limited supply (minimum 3 tonnes) of rock salt as a de-icing agent. This will be held at the Council's plant and machinery storage facility in the form of palleted bags. The salt will be checked regularly to ensure that it remains granular and managed accordingly if there are signs of solidifying.

4.4 Information and Publicity

The maritime influence on the climate experienced by the Isles of Scilly generally holds temperatures above freezing in winter and when forecast temperatures are low, the likelihood of freezing conditions affecting the roads will often be marginal.

If there is a marginal forecast for freezing road conditions then communications are likely to be reactive after a morning review of actual temperatures, and a survey of the road network which confirms the presence of ice. A judgement will be made as to whether a risk is present and needs to be communicated depending upon the conditions at the time and any follow up treatment required. The Council's website, social media pages and email subscription list will be used as necessary as the effective way to share relevant information.

When there is a high degree of certainty in the forecast for ice or snow to affect the roads, then advisory messages will be issues to the public in advance, again using the Council's website and Corporate Facebook pages as the primary method. However, such a situation is likely to form part of the Council's emergency planning processes which will involve stakeholders and service providers and a recognised Council approach to communications.

Appendices

Appendix A

LIST OF STREETS

(Highways Maintainable At The Public Expense)

Council of the Isles of Scilly

All highways maintainable at the public expense (the streets listed) in the Isles of Scilly are located on the island of St Mary's. Please refer to separate Maps for the linear extents of the streets listed.
This List was last updated on 1st March 2016.

List, Part I – Roads

The streets listed in Part I (i. and ii.) are public roads.

1. Roads, classified 'A' *(with or without dedicated footway(s) forming part of the road)*

Reference	Names of street	Route	Road Maintenance Category
A3110	**Telegraph Road, Town Lane, High Lanes, Carn Friars Lane, Tremelethen Hill, Parting Carn Lane**	Circular – names listed clockwise from junction with the A3111 Pump Road to the same junction	3b
A3111	**Pump Road, Telegraph Road (Porthmellon), Carn Thomas, Higher Strand, Lower Strand, The Parade (North), Hugh Street, The Bank**	A3110 Telegraph Road/Parting Carn Lane junction to the end of the public road at *The Quay*	3b
A3112	**Old Town Lane, Old Town Road, Church Road, Church Street, The Parade (South)**	A3110 Parting Carn Lane to the A3111 The Parade (North)	3b
U02	**Garrison Lane**	A3111 Hugh Street and U01 Garrison Hill	3b
U08	**The Bank (Car Park)**	A3111 The Bank and A3111 The Bank	3b
U12	**Thorofare**	A3111 The Parade (North) and (in two places) A3111 Hugh Street and ends of road (in two places) at *Town Beach*	3b
U13	**The Parade (East)**	A3111 The Parade (North) and A3112 The Parade (South)	3b
U28	**Hospital Lane**	A3112 Church Road and end of road where it meets F13 Mill Hill	3b
U29	**Moor Well Lane**	A3111 Telegraph Road (Porthmellon) and end of road at entrance to the *Porthmellon waste management site*	3b

U30	**Porthmellon Industrial Estate Roads**	A3111 Telegraph Road (Porthmellon) and all ends of road within the industrial estate	3b
U31	**Porthloo Lane**	A3111 Pump Road and U33 Telegraph Road (North)	3b
U26	**Church Road (North)**	A3111 Carn Thomas and A3112 Church Street	3b
U33	**Telegraph Road (North)**	A3110 Telegraph Road and U34 Pungie's Lane	3b
U01	**Garrison Hill**	U03 Jerusalem Terrace and end of road at the frontage of land owned by the Duchy of Cornwall (before the *Garrison Gate*)	4
U03	**Jerusalem Terrace**	A3111 The Bank and U02 Garrison Lane	4
U14	**Silver Street**	A3111 Hugh Street and U16 Porthcressa Road	4
U15	**Ingram's Opening**	A3112 The Parade (South) and U16 Porthcressa Road	4
U16	**Porthcressa Road**	U14 Silver Street and U20 Buzza Street	4
U17	**Porthcressa Road (Lane To South)**	U16 Porthcressa Road and end of road where it meets F10 Porthcressa Promenade And Connecting Ways	4
U18	**Porthcressa**	U16 Porthcressa Road and U20 Buzza Street	4
U19	**Buzza Road**	U20 Buzza Street and end of road where it meets F12 Porthcressa Terrace To Buzza Road	4
U20	**Buzza Street**	A3112 Church Street and U19 Buzza Road	4
U24	**Well Cross**	A3111 Lower Strand and A3112 Church Street	4
U35	**McFarland's Down**	U34 Pungie's Lane and end of road immediately before the junction with track leading to Long Rock	4
U10	**Well Lane**	A3111 Hugh Street and U02 Garrison Lane	5
U11	**Back Lane (Off Garrison Lane)**	U02 Garrison Lane and U10 Well Lane	5
U21	**Ram's Valley**	U20 Buzza Street and end of road at a private gate (road inclusive of frontage of *Arden House*)	5
U25	**Back Lane (Off Well Cross)**	U24 Well Cross and U26 Church Road (North)	5

U32	**Mount Flagon And Thomas' Porth**	U31 Porthloo Lane and end of road at the frontage of *Camberdown* (inclusive)	5
U34	**Pungie's Lane**	U33 Telegraph Road (North) and A3110 High Lanes (a forked junction)	5
U36	**Holy Vale**	A3110 High Lanes and U37 Holy Vale Lane and looping onto itself	5
U38	**Ennor Close (Estate Roads)**	A3112 Old Town Lane and A3112 Old Town Lane and the two ends of road which meet F19 Ennor Close (Estate Paths)	5
U27	**Branksea Close**	A3112 Church Road and end of road where it meets F15 Branksea Close (Estate Paths)	6
U37	**Holy Vale Lane**	A3110 Telegraph Road and U36 Holy Vale	6

End of Part I

List, Part II – Footways

The streets listed in Part II are public footways or public footpaths *(not forming part of a road)*

Reference	Name or description of street	Running between	Footway Maintenance Hierarchy
F01	**The Bank To Jerusalem Terrace**	A3111 The Bank and U03 Jerusalem Terrace	4
F02	**Parsons Field To Garrison Lane (Upper)**	U06 Parson's Field (Service Road) and junction of U02 Garrison Lane & U04 Sally Port	4
F03	**Parsons Field To Garrison Lane (West)**	U06 Parsons Field (Service Road) and U02 Garrison Lane	4
F04	**Parsons Field To Garrison Lane (East)**	U06 Parsons Field (Service Road) and U02 Garrison Lane	4
F05	**Parsons Field (Estate Paths)**	U04 Sally Port and U05 Little Porth Road and U06 Parsons Field (Service Road)	4
F06	**Sally Port Steps And Passage**	U04 Sally Port (in two places) and end of footway at line of boundary of housing estate with land owned by the Duchy of Cornwall	3
F07	**Little Porth**	U05 Little Porth Road and end of footway at frontage of *29 Sally Port* and U07 Little Porth Slipway	4
F08	**Customs House To Town Beach**	A3111 Lower Strand and end of footway at *Town Beach*	3
F09	**The Parade To Porthcressa Road**	A3112 The Parade (South) and U16 Porthcressa Road	3

F10	**Porthcressa Promenade And Connecting Ways**	U07 Little Porth Slipway and U14 Silver Street and U16 Porthcressa Road and U17 Porthcressa Road (Lane To South) and U18 Porthcressa and F11 Buzza Road Slipway	3
F11	**Buzza Road Slipway**	U19 Buzza Road and end of footway at *Porthcressa Beach*	3
F12	**Porthcressa Terrace To Buzza Road**	U22 Porthcressa Terrace and U19 Buzza Road	3
F13	**Mill Hill**	U19 Buzza Road and U28 Hospital Lane	3
F14	**Hospital Lane To Dracaena**	U28 Hospital Lane and end of footway at gate at the frontage of *Dracaena*	4
F15	**Branksea Close (Estate Paths)**	U27 Branksea Close and looping onto itself (within the housing estate)	4
F16	**Rear Of Museum**	A3112 Church Street and A3112 Church Street	4
F17	**Strand Promenade And Way To Lifeboat Station**	A3111 Higher Strand and A3111 Carn Thomas and ends of footway at the *RNLI Lifeboat Station* and *Town Beach*	2
F18	**Carn Thomas To Church Road (North)**	A3111 Carn Thomas and U26 Church Road (North)	2
F19	**Ennor Close (Estate Paths)**	U38 Ennor Close (Estate Roads) and U38 Ennor Close (Estate Roads) and ends of footway within the housing estate	4
F20	**Mermaid Inn Slipway**	A3111 The Bank and end of footway at *Town Beach*	4

End of Part II

Separate accompanying maps are available for the above, covering:

1. Hugh Town
2. Old Town
3. Mount Flagon and Thomas' Porth
4. Maypole and Holy Vale
5. St Mary's (*showing maps 1 to 4 inset*)

The following list of footways are also considered to be highways maintainable at public expense due to historic public use and maintenance responsibility undertaken by the Council to ensure access and safety. They have been scheduled for inclusion within this Manual.

Reference	Name or description of street	Running between	Footway Maintenance Hierarchy
F21	**Telegraph Road**	A3110 Carn Thomas to Moorwell Lane	2
F22	**Telegraph Road**	A3110 Carn Thomas to Bay View	2
F23	**Telegraph Road**	A3111 Bay View to Parting Carn	2
F24	**Porthloo Lane**	U31 Rose Hill towards Porthloo	4
F25	**Telegraph Road**	A3110 Parting Carn to Sunnyside	3
F26	**Telegraph Road**	A3110 Sunnyside to Trewince	3
F27	**Parting Carn Road**	A3110 Parting Carn to Old Town Junction	3
F28	**Old Town Lane**	A3112 Old Town Lane Junction to Trench Lane	3
F29	**Old Town Road**	A3112 Trench Lane to Hospital Junction	3
F30	**Church Road**	A3112 Hospital Junction to church Junction	2
F31	**Church Street**	A3112 Church Junction to Hugh St Narrows (both sides)	1
F32	**The Strand**	A3111 Carn Thomas to The Club (both sides)	1
F33	**The Parade**	A3111 The Club to Hugh St Narrows (both sides)	1
F34	**Hugh Street**	A3111 Hugh St Narrows to The Quay (both sides)	1
F35	**Silver Street**	U14 Hugh Street to Little Porth Road U05	1

Appendix B

Safety Inspection Defect types

Note: The comprehensive list of defects given below is for guidance only in assessing the extent of any hazard. The defect risk assessment will consider this guidance alongside other factors such as defect location, its nature in relation to surrounding condition, seasonal traffic/footfall use, other. *Specialist Inspection.

Carriageway Running Surface			
Defect Description	**Notes**	**Measure**	**Units**
Pothole	*Pothole* depth >40 mm	area	m^2
Major deterioration depth > 40 mm	*Cracking, coarse crazing, severe fretting & loss of aggregate allowing serious permeability of water*	area	m^2
Debris, excessive mud, oil/diesel spillage, dead animal, other obstruction	*Scattered fragments, wreckage, spillage likely to cause a hazard*	area	m^2
Flooding / Standing Water	*Excess of water likely to cause a hazard or structural problems*	area	m^2
Edge deterioration	*Cracking, fretting and deformation of carriageway. Including loss of edge material.*	length	m
Surface irregularity	*Local settlement or subsidence producing a difference in level. Loss of surfacing material causing a difference in level*	length	m
Encroachment of verge, hedge or tree	*Gradual inroad onto the carriageway footway or cycleway*	length	m
Single crack	*In surface that may allow serious permeability of water*	length	m
Cracking around ironwork	*Localised cracking, fine crazing and fretting allowing permeability of water*	area	m^2
Defective Trench / Patch depth	*Spalling and fretting around edge, difference in level. If* > 40 mm Cat 1	area	m^2
Litter	*Accumulation of paper, cans, bottles etc.*	area	m^2
Vegetation Growth	*Undergrowth, small bushes, and trees etc. causing an obstruction. Small vegetation growing in an inappropriate location*	area	m^2
Minor deterioration	*Localised cracking, fine crazing and fretting Loss of surface aggregate, applied chippings or fatting up of bituminous binder. Cracking, fretting, and deformation of edge of carriageway (Black top only)*	area	m^2

Carriageway kerbs			
Defect Description	**Notes**	**Measure**	**Units**
Horizontal projection > 50mm	*Individual misalignment or displacement of kerb*	length	m
Missing		length	m
Vertical projection > 20 mm	*Individual misalignment or displacement of kerb*	item	no.
Open joints width > 20 mm		item	no.
Loose / rocking difference in level > 20 mm		length	m
Loose / rocking difference in level < 20 mm		length	m
Flooding / Standing Water	*Excess of water likely to cause a hazard or structural problems*	area	m^2
Open joints width < 20 mm		item	no.
Weed growth	*Small vegetation growing in an inappropriate location*	area	m^2

Carriageway Channels			
Defect Description	**Notes**	**Measure**	**Units**
Impeded water flow	*Detritus at the edge preventing run-off or flow along the channel including Beany kerb*	length	m
Vertical projection > 20 mm	*Individual misalignment or displacement of channel*	item	no.
Loose / rocking difference in level > 20 mm		length	m
Open joints width > 20 mm		item	no.
Missing		length	m
Flooding / Standing Water	*Excess of water likely to cause a hazard or structural problems*	area	m^2
Horizontal projection > 50mm	*Misalignment or displacement of channel*	length	m
Open joints width < 20 mm		item	no.
Impeded water flow	*Including blockages due to detritus including Beany*	length	m
Scour	*Damage to invert of channel caused by flow of water*	length	m
Weed growth	*Small vegetation growing in an inappropriate location*	area	m^2
Loose / rocking difference in level < 20 mm		length	m
Footway/Footpath (non-PROW)			
Defect Description	**Notes**	**Measure**	**Units**
Major deterioration depth > 20 mm	*Cracking, coarse crazing, severe fretting & loss of aggregate allowing serious permeability of water*	area	m^2
Pothole	*Pothole on an urban or rural* depth >20 mm *footway > 300 x 300 mm*	area	m^2
Defective Trench / Patch depth > 20 mm	*Spalling around edge, difference in level*	area	m^2
Debris, excessive mud, oil/diesel splillage, dead animal, other obstruction	*Scattered fragments, wreckage, spillage likely to cause a hazard*	area	m^2
Flooding / Standing Water useable width < 0.9 m	*Water greater than 10mm deep which restricts the footway to < 0.9m*	area	m^2
Surface irregularity	*Local settlement or subsidence producing a difference in level. Loss of surfacing material causing a difference in level*	area	m^2
Cracking around ironwork	*Localised cracking, fine crazing and fretting allowing permeability of water*	area	m^2
Single crack	*In surface that may allow serious permeability of water*	length	m
Litter	*Accumulation of paper, cans, bottles etc.*	area	m^2
Encroachment of verge	*Graduaal inroad of verge onto the carriageway footway or cycleway*	length	m
Weed growth	*Vegetation growing in an location that may cause a hazard*	area	m^2
Minor deterioration	*Localised cracking, fine crazing and fretting. Loss of surface aggregate, applied chippings or fatting up of bituminous binder*	area	m^2
Flooding / Standing Water useable width > 0.9 m	*Excess of water likely to cause a hazard or structural problems*	area	m^2

Highway Drainage Gully			
Defect Description	**Notes**	**Measure**	**Units**
Difference in level with road > 20 mm	*Differential levels between items and abutting carriageway, footway or cycle track surface*	item	no.
Ironwork Missing		item	no.
Parallel gratings Gap > 20mm	*Parallel to normal line of pedal & motor cycles. (Unless in conservation area)*	item	no.
Ironwork Cracked or broken	*Level of cracking to be assessed*	item	no.
Rocking under load	*If relative movement exceeds 10mm record as cat 1*	item	no.
Flooding / Standing Water	*Excess of water likely to cause a hazard or structural problems*	area	m^2
Silted /Blockage / Obstruction	*Restriction of the free flow of water or excessive silt within chamber restricting the free flow of water*	item	no.
Weed Growth	*Vegetation growing in a location that may cause a hazard or damage*	area	m^2
Fleeced over	*Grating restricted by silt and weed growth*	item	no.
Difference in level with road < 20 mm	*Differential levels between items and abutting carriageway, footway or cycle track surface*	item	no.
Cracking around ironwork	*Localised cracking, fine crazing and fretting allowing permeability of water*	area	m^2
Smooth surface	*Worn covers which may cause skidding in wet conditions*	item	no.
Litter	*Accumulation of paper, cans, bottles etc.*	area	m^2
Roots present *	*Causing restricted flow*	item	no.
Damaged Chamber *		item	no.
Collapsed (sp. Ins)	*Inner chamber collapsed*	item	no.
Scour *		item	no.

Highway Drainage Piped Drainage			
Defect Description	**Notes**	**Measure**	**Units**
Flooding / Standing Water	*Excess of water likely to cause a hazard or structural problems*	area	m^2
Weed Growth / Fleeced	*Vegetation growing in a location likely to cause a hazard*	area	m^2
Collapsed *	Collapse or breakage of pipe restricting the free flow of water	length	m
Silted / Blockage / Obstruction *	*Restriction of the free flow of water. Excessive silt restricting the free flow of water*	length	m
Deformation *	*Deformation of pipe and joints restricting the free flow of water*	length	m
Scour *	Damage to pipe or channel caused by flow of water	length	m
Roots Present *	*Restriction of the free flow of water due to presence of roots*	length	m
Pipe Cracked / Broken *	Physical damage requiring remedial treatment	length	m

Highway Drainage Catch pit, Interceptor, Manhole			
Defect Description	**Notes**	**Measure**	**Units**
Difference in level with road > 20 mm	*Differential levels between items and abutting carriageway, footway or cycle track surface*	item	no.
Ironwork Missing		item	no.
Parallel gratings Gap > 20mm	*Parallel to normal line of pedal & motor cycles. (Unless in conservation area)*	item	no.
Ironwork Cracked or broken		item	no.
Rocking under load	*If relative movement exceeds 10mm record as cat 1*	item	no.
Flooding / Standing Water	*Excess of water likely to cause a hazard or structural problems*	area	m^2
Silted /Blockage / Obstruction	*Restriction of the free flow of water or excessive silt within chamber restricting the free flow of water*	item	no.
Weed Growth	*Vegetation growing in a location that may cause a hazard or damage*	area	m^2
Fleeced over	*Grating restricted by silt and weed growth*	item	no.
Difference in level with road < 20 mm	*Differential levels between items and abutting carriageway, footway or cycle track surface*	item	no.
Cracking around ironwork	*Localised cracking, fine crazing and fretting allowing permeability of water*	area	m^2
Smooth surface	*Worn covers which may cause skidding in wet conditions*	item	no.
Litter	*Accumulation of paper, cans, bottles etc.*	area	m^2
Roots present *	*Causing restricted flow*	item	no.
Damaged Chamber *		item	no.
Collapsed (sp. Ins)	*Inner chamber collapsed*	item	no.
Scour *		item	no.

Highway Drainage Ditch			
Defect Description	**Notes**	**Measure**	**Units**
Flooding / Standing Water	*Excess of water likely to cause a hazard or structural problems*	area	m^2
Silted / Blockage / Obstruction	*Restriction of the free flow of water. Excessive silt restricting the free flow of water*	length	no.
Vegetation Growth	*Undergrowth, small bushes, and trees etc. causing an obstruction*	area	m^2
Scour	*Damage to invert of channel caused by flow of water*	length	m
Litter	*Accumulation of paper, cans, bottles etc.*	area	m^2
Collapsed	*Collapse of sidewall restricting the free flow of water*	length	m

Highway Drainage Grip			
Defect Description	**Notes**	**Measure**	**Units**
Silted / Blockage / Obstruction	*Restriction of the free flow of water. Excessive silt restricting the free flow of water*	length	no.
Vegetation Growth	*Undergrowth, small bushes, and trees etc. causing an obstruction*	area	m^2
Scour	*Damage to invert of channel caused by flow of water*	length	m
Collapsed	*Collapse of sidewall restricting the free flow of water*	length	m
Flooding / Standing Water	*Excess of water likely to cause a hazard or structural problems*	area	m^2
Litter	*Accumulation of paper, cans, bottles etc.*	area	m^2

Highway Drainage Piped Grip			
Defect Description	**Notes**	**Measure**	**Units**
Flooding / Standing Water	*Excess of water likely to cause a hazard or structural problems*	area	m^2
Weed Growth / Fleeced	*Vegetation growing in a location likely to cause a hazard*	area	m^2
Collapsed *	Collapse or breakage of pipe restricting the free flow of water	length	m
Silted / Blockage / Obstruction *	*Restriction of the free flow of water. Excessive silt restricting the free flow of water*	length	m
Deformation *	*Deformation of pipe and joints restricting the free flow of water*	length	m
Scour *	Damage to pipe or channel caused by flow of water	length	m
Roots Present *	*Restriction of the free flow of water due to presence of roots*	length	m
Pipe Cracked / Broken *	Physical damage requiring remedial treatment	length	m

Highway Drainage Small Culvert (<0.9m span / dia.)			
Defect Description	**Notes**	**Measure**	**Units**
Flooding / Standing Water	*Excess of water likely to cause a hazard or structural problems*	area	m^2
Weed Growth / Fleeced	*Vegetation growing in a location likely to cause a hazard*	area	m^2
Collapsed *	Collapse or breakage of pipe restricting the free flow of water	length	m
Silted / Blockage / Obstruction *	*Restriction of the free flow of water. Excessive silt restricting the free flow of water*	length	m
Deformation *	*Deformation of pipe and joints restricting the free flow of water*	length	m
Scour *	Damage to pipe or channel caused by flow of water	length	m
Roots Present *	*Restriction of the free flow of water due to presence of roots*	length	m
Pipe Cracked / Broken *	Physical damage requiring remedial treatment	length	m

Landscaped Areas and Trees - Verge			
Defect Description	**Notes**	**Measure**	**Units**
Surface Deformation	*By overriding, poor reinstatements or accident damage*	area	m^2
Verge rutting > 75mm (adjacent to high speed carriageway)	*Longitudinal deformation of the verge adjacent to high speed carriageway*	length	m
Long Grass causing safety problem	*Normally addressed by swathe or visibility cut.*	area	m^2
Vegetation Growth	*Undergrowth, small bushes, and trees etc. causing an obstruction*	area	m^2
Noxious and Invasive weeds *	*Ragwort, Broad leaved Dock, Curled Dock, Creeping, Spear Thistle & Japanese Knotweed*	area	m^2
Slip *	*Deep seated slippage of material (identified by a slip circle)*	length	m
Debris, excessive mud, oil/diesel spillage, dead animal, other obstruction	*Scattered fragments, wreckage, spillage likely to cause a hazard*	area	m^2
Unstable tree / branch *	*Broken or damaged*	item	no.
Dead tree / branch *		item	no.
Defective Trench / Patch depth > 40 mm	*Spalling around edge, Difference in level*	area	m^2
Flooding / Standing Water	*Excess of water likely to cause a hazard or structural problems*	area	m^2
Litter	*Accumulation of paper, cans, bottles etc.*	area	m^2

Landscaped Areas and Trees - Hedge			
Defect Description	**Notes**	**Measure**	**Units**
Broken or Hanging limbs	*Broken limbs likely to cause a hazard*	item	no.
Cavities at Base, Crown or Stem		item	no.
Dead Tree or Branch		item	no.
Dying / diseased tree	*Diseased, wilting or die-back*	item	no.
Growth Obscuring Visibility	*Obscured horizontal or vertical alignment due to tree growth*	area	m^2
Growth Restricting Traffic		area	m^2
Obscured Street Light		item	no.
Obscured Street Sign	*Regulatory sign - Cat1 Warning or Informative -Cat2*	item	no.
Root Damage to Highway	*Structural damage causing a safety hazard*	area	m^2
Damage to Roots		item	no.

Fences and Barriers - Pedestrian Guard Rail			
Defect Description	**Notes**	**Measure**	**Units**
Accident Damage - severe	*Severe deformation of guard rail, deformed / broken items causing an additional hazard to the user*	length	m
Accident Damage - slight to moderate	*Moderate deformation to the Fence or Wall but not dangerous*	length	m
Loose / missing component		item	no.
Corrosion	*Causing hazard*	item	no.

Traffic Signs and Bollards - Sign (Non-Illuminated)			
Defect Description	**Notes**	**Measure**	**Units**
Missing or damaged (Regulatory sign)		item	no.
Dirty sign	*Cat 1 if regulatory completely obscured*	item	no.
Poor condition or missing fittings		item	no.
Condition of post		item	no.
Pointing wrong way (Regulatory sign)		item	no.
Surface corrosion		item	no.
Missing or damaged (Warning or Informative sign)		item	no.
Pointing wrong way (Warning or Informative sign)		item	no.
Surface colour *		item	no.
Surface luminance *		item	no.
Legibility distance *		item	no.

Traffic Signs and Bollards - Signs and Bollards (Illuminated)			
Defect Description	**Notes**	**Measure**	**Units**
Missing or damaged (Regulatory sign)		item	no.
Pointing wrong way (Regulatory sign)		item	no.
Exposed wiring		item	no.
Light failure		item	no.
Dirty sign	*Cat 1 if regulatory completely obscured*	item	no.
Poor condition or missing fittings		item	no.
Condition of post		item	no.
Surface corrosion		item	no.
Missing or damaged (Warning or Informative sign)		item	no.
Pointing wrong way (Warning or Informative sign)		item	no.
Surface colour *		item	no.
Surface luminance *		item	no.
Legibility distance *		item	no.

Traffic Signs and Bollards - Hazard Post			
Defect Description	**Notes**	**Measure**	**Units**
Missing		item	no.
Damaged post or Reflector		item	no.
Dirty Reflector		item	no.
Pointing wrong way		item	no.
Surface colour *		item	no.
Surface luminance *		item	no.
Legibility distance *		item	no.

Road Markings and Studs - Transverse / Special Marks			
Defect Description	**Notes**	**Measure**	**Units**
Worn road markings Stop Lines	*Are lines conspicuous?*	length	m
Giveway lines on junctions	*Are lines conspicuous?*	length	m
Worn road markings Others	*Are lines conspicuous?*	length	m
Retro-reflectivity *	*Night time inspection of line visibility*	length	m

Road Markings and Studs - Longitudinal Markings			
Defect Description	**Notes**	**Measure**	**Units**
Worn road markings	*Are lines conspicuous?*	length	m
Retro-reflectivity *	*Night time inspection of line visibility*	length	m

Road Markings and Studs - Hatched Markings			
Defect Description	**Notes**	**Measure**	**Units**
Worn road markings	*Are lines conspicuous?*	length	m
Retro-reflectivity *	*Night time inspection of line visibility*	length	m

Street Lighting			
Defect Description	**Notes**	**Measure**	**Units**
Exposed wiring		item	no.
Damaged post / column		item	no.
Missing (door, lamp, bowl)		item	no.
Lamp on during day	*Record lamp number*	item	no.

Utility Covers, Frames & Boxes			
Defect Description	**Notes**	**Measure**	**Units**
Difference in level with c/way > 20 mm	*Differential levels between items and abutting carriageway, footway or cycle track surface*	item	no.
Difference in component levels > 20 mm	*Differential levels between different components*	item	no.
Ironwork Missing		item	no.
Smooth surface	*Worn covers which may cause skidding in wet conditions*	item	no.
Rocking under load	*If relative movement exceeds 10mm record as cat 1*	item	no.
Ironwork Cracked or broken		item	no.
Cracking around ironwork	*Localised cracking, fine crazing and fretting allowing permeability of water*	area	m^2

Appendix C

Service Inspections: Assessment & Treatments

Service Inspection by Treatment	Carriageway		
Treatment	**Notes and Typical defects**	**Measure**	**Units**
Overlay > 40mm	*Cracking, coarse crazing, severe fretting & loss of aggregate allowing serious permeability of water*	area	m^2
Patching & Thin Surfacing	*Localised cracking, fine crazing and fretting with localised spalling and fretting*	area	m^2
Thin Surfacing	*Localised cracking, fine crazing and fretting (or loss of surface aggregate or applied chippings, fatting up of bituminous binder in urban areas)*	area	m^2
Patching & Surface Dressing	*Loss of surface aggregate, applied chippings or fatting up of bituminous binder with localised crazing, spalling and fretting*	area	m^2
Surface Dress	*Loss of surface aggregate or applied chippings, fatting up of bituminous binder or fine crazing*	area	m^2
Haunching, Patching & Thin Surfacing	*Cracking, fretting, and deformation of edge of carriageway, (Black top only) with localised cracking, fine crazing and fretting with localised spalling and fretting*	area	m^2
Haunching & Surface Dress	*Cracking, fretting, and deformation of edge of carriageway (Black top only) with loss of surface aggregate, applied chippings or fatting up of bituminous binder*	area	m^2
Haunching, Patching & Surface Dress	*Cracking, fretting, and deformation of edge of carriageway (Black top only) with loss of surface aggregate, applied chippings or fatting up of bituminous binder with localised spalling and fretting*	area	m^2
Haunching	*Cracking, fretting, and deformation of edge of carriageway (Black top only)*	length	m
Patching	*Localised cracking or spalling and fretting, difference in level*	area	m^2
Refurbish Traffic Calming features	*Damaged road cushions, difference in levels, incorrect height, coloured surfacings, loss of surface aggregate*	Item	no.

Service Inspection by Treatment	Kerbs		
Treatment	**Notes and Typical defects**	**Measure**	**Units**
Reinstate	*(Repair existing) Damaged, misaligned or displaced kerbs*	length	m
Renew	*(Replace Old for New) Damaged, misaligned or displaced kerbs*	length	m

Service Inspection by Treatment	Footway		
Treatment	**Notes and Typical defects**	**Measure**	**Units**
Patching	*Localised spalling and fretting, difference in level*	area	m^2
Thin Surfacing	*Localised cracking, fine crazing and fretting*	area	m^2
Patch & Thin Surfacing	*Localised cracking, fine crazing and fretting with localised spalling and fretting*	area	m^2
Overlay > 40mm	*Difference in level, cracking, coarse crazing, severe fretting & loss of aggregate*	area	m^2
Inlay < 40mm	*Difference in level, cracking, coarse crazing, severe fretting & loss of aggregate*	area	m^2
Reinstate Sets / Slabs	*(Repair existing) Difference in level or profile, excessive joints, loose, rocking, cracked or missing*	area	m^2
Renew Sets / Slabs	*(Replace Old for New) Difference in level or profile, excessive joints, loose, rocking, cracked or missing*	area	m^2
Reconstruct	*(Replace Old for New - Blacktop only) Difference in level or profile, excessive joints, loose, rocking, cracked or missing*	area	m^2

Service Inspection by Treatment	Footway & Kerbs		
Treatment	**Notes and Typical defects**	**Measure**	**Units**
Patching and Kerb reinstatement	*Localised spalling and fretting, difference in level, with damaged kerbs*	area	m^2
Thin Surfacing and Kerb reinstatement	*Localised cracking, fine crazing and fretting, with damaged kerbs*	area	m^2
Patch & Thin Surfacing and Kerb reinstatement	*Localised cracking, fine crazing and fretting with localised spalling and fretting, with damaged kerbs*	area	m^2
Overlay > 40mm and Kerb reinstatement	*Difference in level, cracking, coarse crazing, severe fretting & loss of aggregate, with damaged kerbs*	area	m^2
Inlay < 40mm and Kerb reinstatement	*Difference in level, cracking, coarse crazing, severe fretting & loss of aggregate, with damaged kerbs*	area	m^2
Reinstate Sets / Slabs and Kerb reinstatement	*(Repair existing) Difference in level or profile, excessive joints, loose, rocking, cracked or missing, with damaged kerbs*	area	m^2
Renew Sets / Slabs and Kerb reinstatement	*(Replace Old for New) Difference in level or profile, excessive joints, loose, rocking, cracked or missing, with damaged kerbs*	area	m^2
Reconstruct and Kerb reinstatement	*(Replace Old for New - Blacktop only) Difference in level or profile, excessive joints, loose, rocking, cracked or missing, with damaged kerbs*	area	m^2

Service Inspection by Treatment	Highway Drainage		
Treatment	**Notes and Typical defects**	**Measure**	**Units**
Investigate	*Flooding or standing water, blocked drainage systems and outlets*	item	no.
Reinstate	*(Repair existing) Ironwork cracked or broken, differential levels, damaged or blocked chambers & pipes*	item	no.
Renew	*(Replace Old for New) Ironwork cracked or broken, differential levels, damaged or blocked chambers & pipes, worn covers which may cause skidding in wet conditions*	item	no.
Provide New	*(New) Additional drainage systems to prevent ponding or flooding (Safety)*	item	no.
Reinstate Piped Drainage	*(Repair existing) Blocked or obstructed, scour damage caused by flow of water, excessive build up of silt, partial collapse*	length	m
Reinstate Filter Drain	*(Repair existing) Displaced or contaminated filter material, blocked or obstructed pipe work*	length	m
Reinstate Ditch	*(Repair existing) Undergrowth causing obstruction, scour damage caused by flow of water, excessive build up of silt, partial collapse*	length	m

Service Inspection by Treatment	Landscaped Areas & Trees		
Treatment	**Notes and Typical defects**	**Measure**	**Units**
Siding	*Encroachment of verge onto the carriageway*	length	m
Swathe Cut	*Long Grass or vegetation causing a potential hazard*	length	m
Visability Cut Required	*Long Grass or vegetation causing a potential hazard*	area	m^2
Request Specialist Inspection	*Trees that appear to be diseased, wilting or die-back requiring a Specialist Inspection*	item	no.
Remove Damaged/Dead tree	*Obvious damaged or dead branches etc causing a potential hazard*	item	no.

Service Inspection by Treatment	Fences & Barriers		
Treatment	**Notes and Typical defects**	**Measure**	**Units**
Reinstate Wood Fence	*(Repair existing) Damaged Wood Fence - check ownership*	length	m
Reinstate Vehicle Restraint System	*(Repair existing) Damaged Vehicular Vehicle Restraint System*	length	m
Reinstate Ped. Guard Rail	*(Repair existing) Damaged Pedestrian Guard Rail*	length	m
Reinstate Wall	*(Repair existing) Damaged Wall - check ownership*	length	m

Service Inspection by Treatment	Signs		
Treatment	**Notes and Typical defects**	**Measure**	**Units**
Renew Signs (small)	*(Replace Old for New) Small Plates < 0.4sq.m.*	item	no.
Renew Signs (medium)	*(Replace Old for New) Medium signs 0.4 - 4.0 sq.m. Damaged, surface corrosion, missing, surface luminance*	item	no.
Renew Signs (large)	*(Replace Old for New) Large signs > 4.0 sq.m. Damaged, surface corrosion, missing, surface luminance*	item	no.
Renew Posts, Pillars and Bollards	*(Replace Old for New) Damaged, surface corrosion or missing*	item	no.

Service Inspection by Treatment	Road Markings		
Treatment	**Notes and Typical defects**	**Measure**	**Units**
Renew Jct Markings	*(Replace Old for New) Missing or inconspicuous, poor retro-reflectivity*	item	no.
Renew Long Rd Markings	*(Replace Old for New) Missing or inconspicuous, poor retro-reflectivity*	length	m
Renew Hatched Rd Markings	*(Replace Old for New) Missing or inconspicuous, poor retro-reflectivity*	length	m
Renew Specialist markings	*(Replace Old for New) Missing or inconspicuous, poor retro-reflectivity*	length	m
Renew Catseye / Studs	*(Replace Old for New) Missing, incorrect level, poor reflectivity*	length	m

Service Inspection by Treatment	Routine Maintenance		
Treatment	**Notes and Typical defects**	**Measure**	**Units**
Provide Weed Control	*Weed growth restricting free drainage or causing a potential hazard, noxious or invasive weeds,*	length	m
Provide Amenity Grass Cutting	*Long grass or vegetation causing a potential hazard*	area	m^2
Provide Sweeper	*Loose debris, Excessive mud, Spillages*	length	m
Provide Siding	*Encroachment of verge onto the carriageway*	length	m
Provide Gully Emptier	*Blockages or obstructions, flooding, standing water*	length	m
Provide Sign Cleaning	*Dirty signs*	item	no.
Provide Night Inspection - Sign Reflectivity	*Poor sign retro-reflectivity, worn white lines, missing or damaged roads studs / cats eyes*	item	no.
Contact Waste Team	*Excessive litter, fly tipping, removal of dead animals, wreckage and debris*	item	no.