

PUBLIC



HIGHWAY INFRASTRUCTURE ASSETS SAFETY INSPECTIONS MANUAL

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AN ELEMENT OF THE HIGHWAY INFRASTRUCTURE
ASSET MANAGEMENT SYSTEM

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1 BACKGROUND

- 1.1 This document supersedes the previous document titled – ‘*Highway Safety Inspections Manual (Instructions to for Safety Inspections)*’ dated July 2013.
- 1.2 The changes required to the previous version, as set out in this new edition, are essential to reflect the [2016 Code of Practice for Well-Managed Highway Infrastructure](#) and the [2013 Highways Maintenance Efficiency Programme \(HMEP\) Highway Infrastructure Asset Management Guidance](#). This document forms part of the suite of ‘Highway Infrastructure Asset Management’ documents.
- 1.3 This manual is intended for employees involved in the safety inspections of Derbyshire’s highway network, whether that be through routine safety inspections or ad-hoc safety inspections generated as a result of an enquiry investigation. It is not intended to cover inspections of Public Rights of Way (unless they form part of the footway hierarchy within or on the fringe of urban areas). The use of this Manual applies to adopted highways only.
- 1.4 The safety inspection includes those highway infrastructure assets within the following main asset groups:
- carriageways, including on-road cycle ways
 - footways, including shared use
 - structures
 - drainage
 - street lighting
 - traffic management and management of electronic traffic equipment
 - street furniture, including pedestrian barrier/restraint system and traffic signs
 - trees and verges
- 1.5 This is a controlled document and it will be updated as details of legislation, updates to the Code of Practice for Highway Maintenance Management, other national guidance and resources etc. change. It is supported by the Quality Management System Highway Maintenance Process.

2 THE NEED FOR HIGHWAY INFRASTRUCTURE ASSET SAFETY INSPECTIONS

- 2.1 As the Highway Authority, Derbyshire County Council (DCC) has a statutory duty to maintain highways maintainable at public expense under [Section 41 of the Highways Act 1980](#). Neglecting this duty can lead to claims against the County Council for damages resulting from a failure to maintain a highway.
- 2.2 [Section 58](#) of the Act, allows the Council to use a ‘**Special Defence**’ in actions against it for damages for non-repair of a highway if it can demonstrate that it has taken such reasonable care to ensure that the highway was not dangerous to traffic having regard to:
- a. *The character of the highway and the traffic which was reasonably to be expected to use it*

- b. The standard of maintenance appropriate for a highway of that character and used by such traffic*
 - c. The state of repair in which a reasonable person would have expected to find the highway'*
 - d. Whether the highway authority knew, or could reasonably have been expected to know, that the condition of the part of the highway to which the action relates was likely to cause danger to users of the highway'*
 - e. Whether warning notices were displayed when immediate repair could not reasonably be expected.*
- 2.3 The establishment of an effective regime of inspections, assessment, recording and prioritisation of defect repairs is a crucial component of highway maintenance. It provides a robust framework to address key objectives for the maintenance of the highway in a safe and serviceable manner, as required by [Section 41 of the Highways Act 1980](#) and consistent with the Council's Highways Infrastructure Asset Management process.
- 2.4 Case history demonstrates that the Highway Authority must also record all customer reports of highway defects, however, not all defects, which the Authority becomes aware of by inspection or customer report, need to be repaired. All defects are recorded in the Single Asset Management System (SAMS) and these records may also be used as evidence to show that the Highway Authority has acted reasonably.
- 2.5 The Highways Communications Plan details the expectations that can be anticipated when an enquiry is made by a member of the public. It outlines the approach to keeping stakeholders informed and aware of our work on the highway, using the most suitable communication channels, whilst ensuring that there are appropriate opportunities for feedback from users.

3 PURPOSE OF SAFETY INSPECTIONS

- 3.1 Safety inspections are designed to identify, assess, record and prioritise the repair of defects which may present an immediate danger or significant inconvenience to users of the highway. A defect may apply to the structural condition of the highway or the infrastructure assets contained within the highway boundary. In addition, safety inspections may be used to identify defects of a lesser magnitude which may be included within future programmes of planned maintenance work to preserve the highway infrastructure assets and keep the highway in a serviceable condition, or to indicate that a more in depth service inspection may be required. This is in line with our overall aims of network safety, serviceability and sustainability. This manual does not include inspections for snow and ice. Winter maintenance and adverse weather policy and practice is provided in a separate document.
- 3.2 Safety inspections are supplemented by other inspections and assessments undertaken in line with national standards and/or good practice. These are discussed in the relevant Highway Infrastructure Asset Management Plan for each asset area.
- 3.3 Safety inspections are visual inspections undertaken in accordance with risk assessment as outlined through the risk based approach in Section 6 of this document. They are designed to provide complete, accurate and timely information,

as far as is reasonably practicable, on the safety maintenance needs of the highway infrastructure network and its ancillary assets based on site observations and measurements. These are applied through a risk based approach reflective of the characteristics of the defect, the local environment and network usage. All information is recorded and stored within SAMS. We do not risk assess every minor imperfection on the network but only those which meet our investigatory criteria.

4 PERSONS UNDERTAKING INSPECTIONS

- 4.1 The person undertaking an inspection should be provided with appropriate training, regular updates and audited and accredited as competent in the required field of expertise. Training should have been undertaken to the DCC required level, which includes the following:
- Lantra accredited training
 - Training on Highways Infrastructure Assets Safety Inspections Manual
 - Systems training
 - Risk assessment and defect report process training
 - Chapter 8 safety at street works and road works
- 4.2 Inspectors' are required to undergo continual professional development, to be regularly audited and appraised annually to ensure continuing capability within the field.
- 4.3 The Inspector is responsible for the accuracy of that inspection and the recorded information. In certain circumstances, that person may be called into Court to substantiate their inspection records. Any employee involved in the inspection process may be required to provide information relating to third party claims received and provide statements towards the defence of claims where the County Council's legal and insurance representatives are involved.
- 4.4 It is desirable that all personnel involved in safety inspections should be included on the National Register of Highway Inspectors currently held by the Institute of Highway Engineers.

5 NETWORK HIERARCHY AND SAFETY INSPECTIONS

- 5.1 An integrated Network Hierarchy is crucial to asset management. It is formed through a series of network hierarchies that have been identified for each road user type. The network hierarchy is user defined, based on usage and not dependent on the current road classification system. A Resilient Network has been developed and has the highest priority.
- 5.2 DCC has set its own standards for the frequency of its highway safety inspections. The frequencies have been determined for each Network Hierarchy, using a risk based approach based on usage, ie the hierarchy with the most usage has the highest inspection frequency. The frequencies are shown in the table overleaf. These have been approved by Elected Members.

- 5.3 Each part of the network is assigned a hierarchy which relates its importance to usage. These hierarchies are stored in SAMS and records are kept of hierarchy changes.
- 5.4 Hierarchies need to be as dynamic as possible and regularly reviewed to reflect changes in network characteristics and functionality, so that maintenance policies, practices and standards reflect the current situation rather than the use expected when the hierarchy was originally defined and or last modified.
- 5.5 Highway Inspectors are able to evaluate their inspection routes when changes occur in characteristics and functionality and, as a result, they can make recommendations for a hierarchy review as they see appropriate.
- 5.6 Footway and cycleway hierarchies can be different to carriageway hierarchies and therefore some roads have different hierarchy classifications and potentially different inspection frequencies for carriageways, footways and cycleways.

All defined inspection frequencies should be maintained in accordance with Table 1 overleaf:

Table 1 Frequency of Inspections

A. Carriageways

| Hierarchy | Category | Frequency of Safety Inspection* |
|---------------------|---|--|
| Resilient Network | Priority network required to maintain economic activity and key services | 1 month |
| Network Hierarchy 1 | Annual Average Daily Traffic Flow ≥ 9000 | 1 month |
| Network Hierarchy 2 | Annual Average Daily Traffic Flow ≥ 6000 and < 12000 | 1 month |
| Network Hierarchy 3 | Annual Average Daily Traffic Flow ≥ 3000 and < 8000 | 1 month |
| Network Hierarchy 4 | Remaining Strategic Regional Routes, Main Distributor Roads and Secondary Distributor Roads | 1 month |
| Network Hierarchy 5 | Remaining link roads | 3 months |
| Network Hierarchy 6 | Remaining Local Access roads that are not a cul-de-sac | 1 year |
| Network Hierarchy 7 | Remaining Local Access roads That are a cul-de-sac | 1 year |

B. Footways

| Hierarchy | Category | Frequency of Safety Inspection* |
|-----------|---|---------------------------------|
| 1A | Prestige Area | 1 month |
| 1 | Primary walking route (including shared used facilities) | 1 month |
| 2 | Secondary walking route (including shared use facilities) | 3 months |
| 3 | Link Footways | As for carriageway |
| 4 | Local Access Footways | As for carriageway |
| 5 | Carriageway – Contiguous or shared | As for carriageway |
| 6 | Footway – Contiguous or shared | As for footway |

C. Cycleways

| Hierarchy | Category | Frequency of Safety Inspection* |
|-----------|-------------------------------------|---------------------------------|
| A | Carriageways – Contiguous or shared | As for carriageway |
| B | Footway – Contiguous or shared | As for footway |

* The inspection due date will generally default to the 15th of the month for each inspection

5.7 Where carriageway and footway hierarchies intersect, for example, at pelican or zebra crossings, bollards or other defined crossing points at junctions, the higher inspection frequency should always take precedence in determining the inspection frequencies, defect definition and responses. This principle should also apply to intersections between carriageways and cycle routes and between cycle routes and footways.

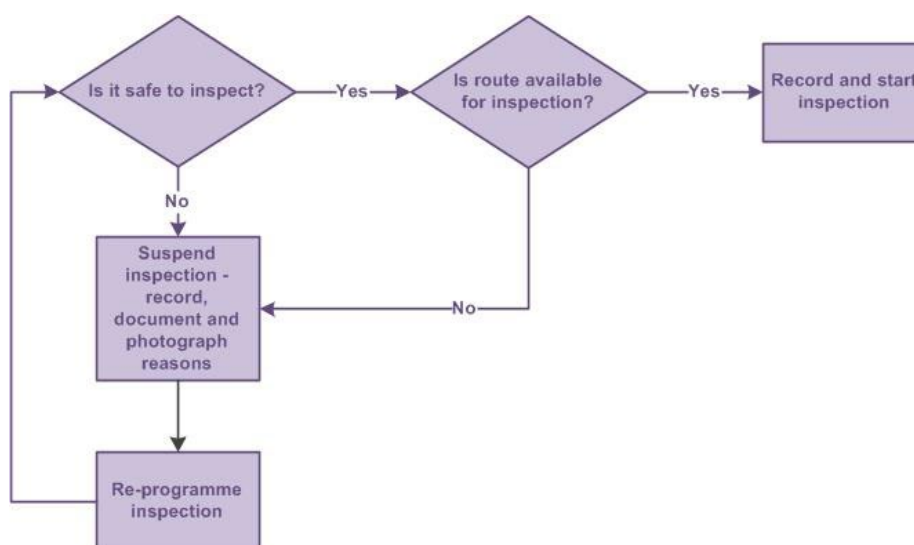
5.8 Tolerance levels for safety inspection frequency are shown in the table overleaf:

Table 2: Safety Inspection Frequency Tolerance

| Inspection Frequency | Tolerance |
|----------------------|-------------|
| Monthly | +/- 10 days |
| Quarterly | +/- 15 days |
| Annually | +/- 30 days |

5.9 Structures safety inspections are not carried out on a specific frequency and are a reactive process which will only occur after an event, such as a flood or after an enquiry.

5.10 Before an inspection takes place, each section of the route is assessed for its availability and whether it is safe to complete the inspection. If, for any reason, part or all of the route cannot be inspected, then the inspection is recorded as suspended, and the reasons and photographs recorded as appropriate. The route or route section is then reprogrammed for inspection at the next available opportunity. If sections of a route continue to be unavailable due to the presence of street works or parked vehicles, then it may not be practicable to inspect those parts of the highway that are obstructed to the same standard as the rest of the highway. The process is shown below:



5.11 Due to the differences in categories between carriageways, footways and cycleways, it may be necessary in certain instances to inspect each element at different times. Conversely, there will be instances where the frequencies for each are the same. These elements may, therefore, be inspected at the same visit.

5.12 Link footways are linking local footways through urban areas and busy rural footways. They are **not** interlinking footways, which are, for example, footways between two housing estate roads.

5.13 DCC will ensure that the routes include the existing highway network and any newly adopted highways, where appropriate. These will be added to the inspection routes as necessary.

6 RISK BASED APPROACH

6.1 GENERAL

- 6.1.1 The Code of Practice does not specify defined intervention levels where action is required to rectify a defect. It allows local authorities to decide if or what investigation criteria is appropriate and requires a risk based approach to the identification, assessment, evaluation, priority and nature of response to defects.
- 6.1.2 The safety inspection regime uses a defect risk assessment process to determine the degree of risk a defect, which meets an investigation criterion, presents to all highway users and not just motor vehicle users. All risks identified through this process have to be evaluated in terms of their significance, which means assessing the probability/likelihood of contact with the defect and the extent of likely damage or loss arising (if any at all) in the event of impact/contact arising.
- 6.1.3 The **probability** is quantified by assessing the likelihood of users, coming into contact with the defect. As the **probability** is likely to increase with increasing vehicular or pedestrian flow, the Network Hierarchy and defect location are, constantly, important considerations in the assessment.
- 6.1.4 The **impact** is quantified by assessing the extent of the damage likely to be caused should the risk become an incident. As the **impact** is likely to increase with increasing speed, the amount of traffic, mode of transport and type of road are clearly important considerations in the assessment.
- 6.1.5 To guide the inspectors in the risk assessment, the SAMS system asks a series of questions relating to impact and probability for each defect type. A definition guide to these questions is provided in [Appendix A](#).
- 6.1.6 The SAMS system will automatically calculate the risk assessment score. The result of this assessment identifies a response. The available responses are as follows:
- Reduce risk or repair within 32 hours
 - Reduce risk or repair within 9 days
 - Reduce risk or repair within 28 days
 - Consider an appropriate response including no further action
- 6.1.7 Defects identified that pose a threat to life are considered an emergency. These must be attended, normally within 2 hours, and either the risk reduced or the defect repaired. Until the response team arrives the inspector must stay with the defect if it cannot be made immediately safe by the inspector and it is safe to do so. Any actions undertaken by the Highways Inspector to reduce risk should be recorded using the “Fix Now” function in the SAMS system. Reduced Risk signage should be used where required. Further guidance can be found in [Appendix C](#).
- 6.1.8 The SAMS system requires the Highway Inspector to agree/disagree with the identified system response. This provides the Highway Inspector with the discretion to use local knowledge and any other risk assessment factor that the automated system has not considered to override to a higher priority response time. Examples

of reasons to alter the identified response time (not exclusively) include: knowledge of local upcoming events, knowledge of previous location history and lack of street lighting at the location etc. All reasons should be provided within the Notes section of the system.

6.1.9 All timeframes begin once the identified defect is recorded and uploaded onto the SAMS system, and all timeframes are consecutive.

6.1.10 The risk assessed response times may be suspended if a state of emergency situation has been declared for either part or the whole of the County as itemised and defined within the Service Levels Suspension Plan.

6.2 ANCILLARY DEFECTS

6.2.1 Not all defects can be rectified by the Highway Authority and require action by others. These defects will be directed, via the SAMS system, to the Control Centre or action officer for distribution to other sections or agencies, as appropriate.

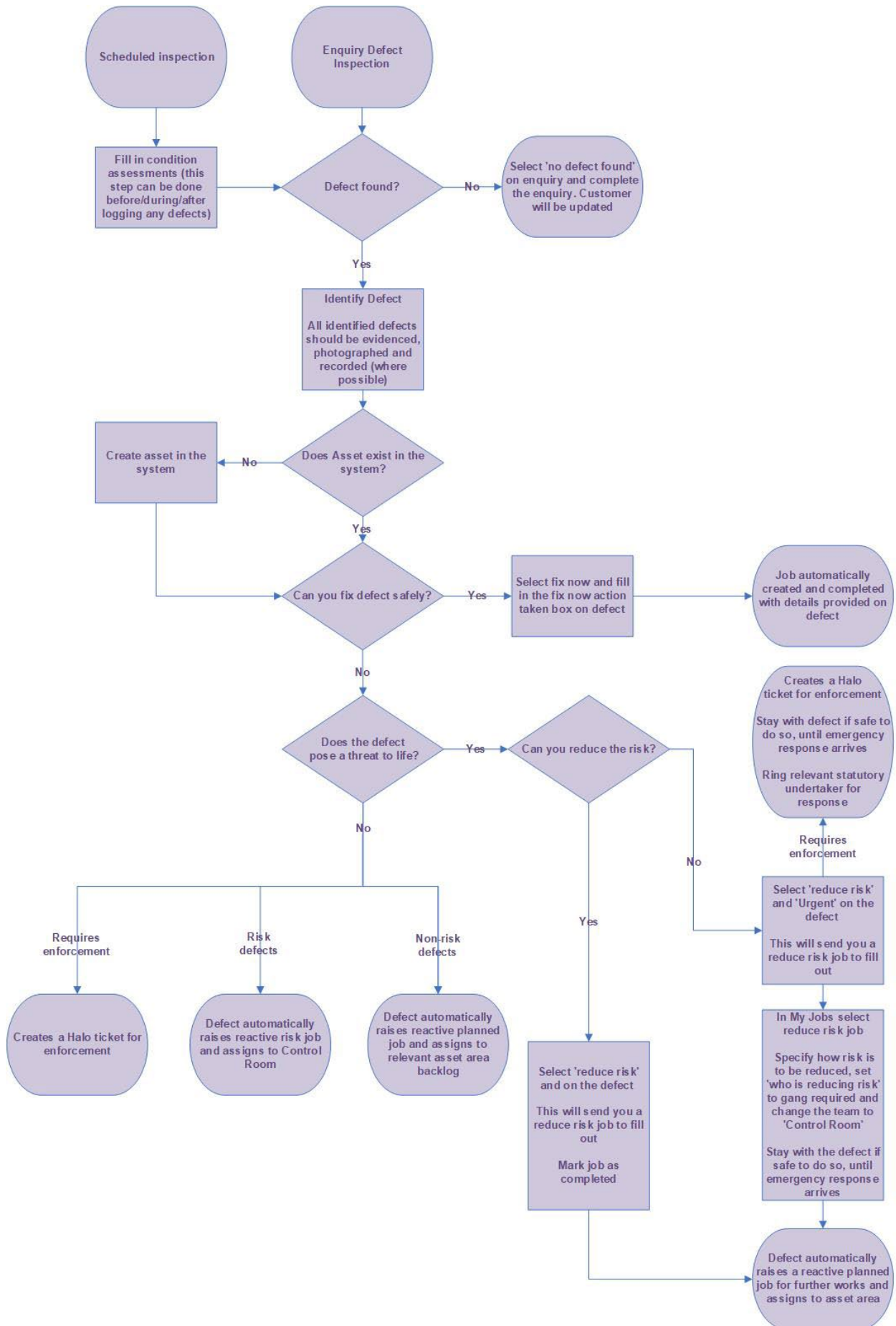
6.2.2 Ancillary defects may range from those that need prompt attention to those that are deemed not to present an immediate or imminent hazard.

6.3 EXAMPLES OF DEFECTS

6.3.1 The classifications, guidance and remarks are contained in [Appendix B](#).

6.4 DEFECT REPORTING PROCESS

6.4.1 The defect reporting process is shown in the figure overleaf:



7 METHOD OF INSPECTION AND RECORDING

7.1 GENERAL

- 7.1.1 Inspections must be carried out in a safe manner so as not to endanger staff or the public. All operations **have a current risk assessment** and all supporting documents are available on either the DCC intranet or in Electronic Data Records Management (EDRM) as appropriate.
- 7.1.2 When an Inspector identifies defects on the highway, the opportunity is available to identify hazards that potentially could affect work teams or contractors undertaking the subsequent repair. This hazard identification is not only a duty of Designers under Construction Design Management (CDM), but is an important part of risk evaluation in departmental procedures and leads to improved efficiency when work teams or contractors are mobilised. The document CDM (GCP 15) is available on either DCC Intranet or in EDRM.
- 7.1.3 The document 'Working on the Highway' (GCP 9) informs employees of safety precautions that **must** be followed in order to reduce the risk of such collisions, not only to themselves, but to all road users. It must be adhered to and is available on either DCC Intranet or in EDRM.
- 7.1.4 If in doubt, employees should consult their manager and/or refer to the risk assessments and general codes of practice.

7.2 DRIVEN INSPECTIONS

- 7.2.1 Highway Infrastructure Assets Safety Inspections, when driven, **must** be undertaken by **two people**, with one driving and the other inspecting in a suitable vehicle travelling at an appropriate speed for the location and the requirement to enable adequate recording of defects. The driver will not be expected to be actively involved in identifying and recording defects, but will concentrate on ensuring the safe passage of the vehicle. Where the Highway Inspector determines that, in their reasonable opinion, the inspection cannot be undertaken and defects effectively observed from the vehicle, then the inspection will be walked.
- 7.2.2 A highway with footways on either side must be driven in both directions.
- 7.2.3 The survey vehicle should be equipped with high intensity roof-mounted, flashing beacons and high visibility reflective markings as a minimum, with other additional features being required subject to certain situations that may include, for example, high speed roads and highly trafficked roads etc.
- 7.2.4 The inspection of any Traffic-sensitive streets should be surveyed at off-peak times, where practical.

7.3 WALKED INSPECTIONS

- 7.3.1 Highway infrastructure assets can be inspected by one person on foot if the person is walking on a footway and can inspect the footway and carriageway at the same time.
- 7.3.2 All Category 1 and 2 footways (if there is a footway on both sides of the road) are to be inspected in both directions.

7.4 ALTERNATIVE METHODS

- 7.4.1 Where alternative methods are available, such as drones or high resolution photography, they will be considered and tested to assess whether they provide a viable alternative method under appropriate circumstances.

7.5 RECORDING

- 7.5.1 The inspection regime must be applied and recorded systematically and consistently. As well as information relating to defects, all inspections must also, therefore, record the following through the use of a hand held device (HHD) capable of transferring data from the field into SAMS:

- Time of inspection and defect identification
- Route section availability for inspection and if safe to inspect
- Weather conditions
- Any unusual circumstances of the inspection
- Person(s) conducting the inspection

- 7.5.2 Each inspection must record the following:

- The relevant Unique Street Reference Number (USRN) for the named street.
- All actionable defects found must be recorded as part of the inspection
- The actionable defect must be recorded against the relevant asset, if no asset exists then the asset must be created first
- If no defects are present this must be recorded as part of the inspection
- Photographs taken of each actionable defect showing scale and context must be attached to the enquiry or defect if an inspection has been walked. For a driven inspection, photographs should be taken only where practical and safe to do so
- If a defect is classed as at a hazard location full details of the exact location must be recorded
- Be time and date stamped

- 7.5.3 High Risk defects which require immediate attention should be transferred from the device as soon as the inspection on a particular street has been completed. If it is not possible to transfer the defect(s) at the time of inspection, it must be transferred within **1 hour** of it being recorded or as soon as practicable. Low Risk defects can be transferred once an inspection has been completed.

- 7.5.4 All records will be kept in accordance with the Data Management Strategy and all inspections will be retained by DCC for future reference.

8 REVIEW PROCESS

- 8.1.1 This manual will be maintained through a formal review process which will generally occur annually. However, feedback and lesson learned will also be reported and any resulting changes required to the manual or process will be disseminated through the monthly Inspector's team meetings as a regular agenda item.

9 APPENDICES

APPENDIX A – RISK ASSESSMENT QUESTION DEFINITIONS

Probability Questions:

| SAMS Detail | Definition |
|--|--|
| P2 Both Sides of Carriageway? of oncoming traffic? | Does the defect alter the path of vehicles into the path |
| P3 At High Risk location? track/pedestrian desire line? | Is the defect located in the wheel track/cycle |
| P4 At Hazard location? | Is the defect located at a hazard ie on a bend, outside a school, at a junction, at a crossing, at a bus stop? |
| P6 Debris/Spillage on Highway? | Is there a debris/spillage on the highway? |
| P7 Affect the Footway? | Does the defect affect the footway? |

Impact Questions:

| SAMS Detail | Definition |
|---|---|
| I1 Speed Limit > 40mph | Is the speed limit greater than 40mph? |
| I2 Impact Non-Motorised Users? | Does it impact road users such as pedestrians, cyclists etc? |
| I3 Impact Grade | <p>Negligible/None – no injury and/or wear and tear only on vehicle</p> <p>Minor – slight bruise/muscle injury and/or instant vehicle repair required eg puncture</p> <p>Moderate – injury not requiring hospital treatment and/or damage to running of vehicle eg wheel damage</p> <p>Serious – injury requiring hospital treatment and/or significant damage to vehicle ie suspension breakage, body damage</p> |
| I4 Worsen By Next Inspection? | Will the defect cause the asset condition to deteriorate further before the next inspection? This is less likely to occur where inspections occur frequently ie monthly |
| I5 Does it affect cyclist? (was previously entitled Affect Peds & Cyclists) | Is it located on a dedicated cycleway, or segregated footway/cycleway or at an identified high risk cycle location? |
| I6 Reduced risk? | Have temporary measures been required to reduce risk? |

APPENDIX B – EXAMPLES OF HIGHWAY DEFECTS

The defects listed are **not** exhaustive and the Inspector will need to use risk assessments to decide what is likely to be hazardous, as local circumstances will apply.

How these defects should be treated will depend on the particular circumstances and the nature and speed of response required.

The following defects listed below will be applied to the appropriate element of the highway. A more detailed description of each defect and the position within the highway is provided defect by defect.

- 1.1 [Pothole](#)
- 1.2 [Standing/running water](#)
- 1.3 [Embankment or bank slips](#)
- 1.4 [Spillages/obstructions/debris](#)
- 1.5 [Overriding](#)
- 1.6 [Defective high friction surface](#)
- 1.7 [Dangerous or obstructing trees](#)
- 1.8 [Obscured visibility and overgrown hedges, bushes and verges](#)
- 1.9 [Defective roadmarks](#)
- 1.10 [Defective ironwork](#)
- 1.11 [Defective cattle grid](#)
- 1.12 [Defective overhead cables](#)
- 1.13 [Defective roadworks signing](#)
- 1.14 [Obstructions – materials, goods, equipment, and signs](#)
- 1.15 [Cracks and gaps](#)
- 1.16 [Abrupt level differences/trip](#)
- 1.17 [Rocking flag](#)
- 1.18 [Damaged road restraint systems](#)
- 1.19 [Defective boundary fences](#)
- 1.20 [Streetlights, illuminated traffic signs and illuminated bollards](#)
- 1.21 [Defective road signs](#)
- 1.22 [Defective traffic signals](#)
- 1.23 [Damaged steps](#)
- 1.24 [Damaged handrails](#)
- 1.25 [Defective escape lanes/arrester beds](#)
- 1.26 [Carriageway/footway/cycleway Deterioration](#)
- 1.27 [Defective traffic calming features](#)
- 1.28 [Damaged kerb/channel](#)
- 1.29 [Street furniture](#)

| | | |
|--------------------|--------------------|-------------------|
| 1.1 POTHOLE | Version 8.0 | 12/02/2024 |
|--------------------|--------------------|-------------------|

Investigatory Criteria

An area of material loss resulting in a vertical edge depression.



Minimum Criteria where applicable

| | |
|-------------------------------|-----------|
| Carriageway | 40mm deep |
| Footway & Cycleway | 20mm deep |

SAMs Defect Codes and Asset to be logged against

| | |
|---|---|
| Carriageway: RC01 Carriageway Pothole (against Highway Network) | Footway: RF01 Footway Pothole (against Highway Network) |
|---|---|

Sample Photograph

| | |
|--|---|
| Carriageway | Footway/Cycleway |
|  |  |

Response

| | |
|---|--|
| 1 | Undertake defect reporting process. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway or stay with defect to reduce risk if safe to do. The system will generate a Reactive Planned job to complete a permanent repair/investigate and route to asset owner. |
| 3 | If further assessment/investigatory work is required by another asset owner, assign Reactive Planned job to relevant department |
| 4 | If related to NRSWA Reinstatement request enforcement, selecting failed reinstatement for NRSWA inspector/Streetworks team to action. |

Notes and Further Investigation

The footway investigatory criteria will be applied to a carriageway at defined pedestrian crossing points, where there is a marked cycle lane on the carriageway, or where there is a high risk to cyclists on the carriageway.

Consideration should be given for powered two wheeled vehicles, cyclists, equestrians and pedestrians as appropriate.

Where multiple defects have been identified and assessed with the same defect response time output then these may be inputted as one defect. However, it should be possible to identify each defect from the information provided to ensure that the correct defects are repaired.

If defect forms part of possible NRSWA reinstatement failure contact NRSWA inspector to establish if within guarantee period. If it is confirmed within period tick Reinstatement to start the Reinstatement Guarantee process.

| | | |
|-----------------------------------|--------------------|-------------------|
| 1.2 STANDING/RUNNING WATER | Version 8.0 | 12/02/2024 |
|-----------------------------------|--------------------|-------------------|

Investigatory Criteria

| |
|--|
| Standing or running water on carriageways where excess water requires signing and guarding or properties are at risk of severe flooding. |
|--|


Minimum Criteria where applicable

| | |
|-------------------------------|--|
| Carriageway | If, after 24 hours from when rain has ceased, the road is impassable, or it is forcing vehicles, cyclists or pedestrians away from the nearside of the carriageway by more than 1m, or if vehicles have to cross the centreline marking. |
| Footway & Cycleway | If, after 24 hours the footway is impassable |

SAMs Defect Codes and Asset to be logged against

| | |
|---|---|
| <p>Carriageway: RC02 Carriageway Gully Blocked (against Gully) RC03 Carriageway Grip Blocked (against Drainage Grip) RC04 Carriageway Ditch Needs Clearing (against Ditch) RC05 Carriageway Culvert Defective (against Culvert) RC06 Carriageway Linear Kerb Drain Defect (against Linear Kerb Drain) RC07 Carriageway Flooding/Ponding (against Flooding Area) RC08 Carriageway Gully Parallel Grating (against Gully Parallel Grating) RC09 Carriageway Bolthole Defective (against Bolthole)</p> | <p>Footway: RF02 Footway Gully Blocked (against Gully) RF03 Footway Flooding/Ponding (against Flooding Area) RF04 Footway Gully Parallel Grating (against Gully Parallel Grating)</p> |
|---|---|

Sample Photograph

| Carriageway | Footway/Cycleway |
|---|--|
|  |  |

Response

| | |
|---|--|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | Attempt to clear standing water if appropriate. |
| 3 | If unable to clear water use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway or stay with defect to reduce risk if safe to do. The system will then generate a Reactive Planned job to complete a permanent repair/investigate and route to asset owner. |
| 4 | Provide information to aid the investigation into a permanent solution. |
| 5 | If further assessment/investigatory work is required by another asset owner, assign Reactive Planned job to relevant department |

Notes and Further Investigation

During prolonged heavy rain, standing / running water will not be treated as requiring further investigation.

Consultation will be required with adjacent landowner/occupier where appropriate.

Statutory undertakers should be contacted where appropriate.

| | | |
|---|--------------------|-------------------|
| 1.3 EMBANKMENT/BANK SLIPS/RETAINING WALL COLLAPSES | Version 8.0 | 12/02/2024 |
|---|--------------------|-------------------|

Investigatory Criteria

An embankment, bank slip or retaining wall collapse obstructing a highway surface or leaving the haunch exposed or unsupported.

Minimum Criteria where applicable

| | |
|-------------------------------|---|
| Carriageway | When the road is obstructed or support lost; or it is forcing vehicles, cyclists or pedestrians away from the nearside of the carriageway by more than 1m; or if vehicles have to cross the centreline marking; or if cyclists have to cross a cycle lane boundary marking. |
| Footway & Cycleway | A slip when either material has deposited on the footway so that it is blocked, pedestrians are forced off the footway, or leaving the footway foundation exposed or unsupported. |

SAMs Defect Codes and Asset to be logged against

NR01 Embankment/Bank Slip Collapse (against either Embankments, or Landslip)
NR02 Retaining Wall Collapse (against Retaining Walls)

Sample Photograph



Response

| | |
|---|---|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | Use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do, or to remove the debris if possible safely under a reduce risk activity and RMTOM. |
| 3 | The system will generate a Reactive Planned job which can include the removal of debris if too extensive and a permanent repair/investigation, this will route to asset owner. |

Notes and Further Investigation

Consultation will be required with adjacent landowner/occupier where appropriate. Where washout/slips occur frequently, the procedures for powers under Section 151 of the Highways Act 1980 should be followed.

Clear any gullies that are blocked and outfall through retaining walls, significant collapses and cost can be avoided by quick action.

If significant support removed from carriageway, road/lane closure may be needed.

| | | |
|-----------------------------|--------------------|-------------------|
| 1.4 SPILLAGES/DEBRIS | Version 8.0 | 12/02/2024 |
|-----------------------------|--------------------|-------------------|

Investigatory Criteria

Spillages include: hazardous liquid, effluent, diesel, oil, petrol and mud.
 Debris on the carriageway, examples include: fallen trees or tree limbs, excessive surplus surface dressing chippings, debris dropped from vehicles, excessive mud, sand, animals, soil or slurry.

Minimum Criteria where applicable

| | |
|-------------------------------|---|
| Carriageway | Item causing immediate danger to highway users. |
| Footway & Cycleway | Item causing immediate danger to highway users. |

SAMs Defect Codes and Asset to be logged against

| | |
|--|--|
| <p>Carriageway: (all against Highway Network)</p> <p>RC10 Carriageway Debris/Spillage RC11 Mud on Carriageway NR03 Dead Animal on Highway</p> | <p>Footway: (all against Highway Network)</p> <p>RF05 Footway Debris/Spillage RF06 Mud on Footway NR03 Dead Animal on Highway</p> |
|--|--|

Sample Photograph



Response

| | |
|---|---|
| 1 | Undertake defect reporting process. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do |
| 3 | Treat spillage with appropriate material and sweep surface if necessary, record actions in the Fix Now function under action taken. |
| 4 | Clear obstruction including removing dead animals to verge if possible and record actions in the Fix Now function under action taken. |

Notes and Further Investigation

Where a spillage is, or could be, of a hazardous nature, remedial action must be undertaken strictly in accordance with the Health and Safety Manual to protect operatives and road users.

General detritus/rubbish clearance is a District/Borough responsibility.

Isolated incidents may be removed to an appropriate temporary location for removal later.

Only dead animals the size of a dead fox or larger should be reported and moved from the live carriageway to the adjacent verge if possible. These will then be removed by the relevant district/borough unless on a dual carriageway.

Landowners should be investigated and contacted through Highways Hub for mud deposits.

| | | |
|-----------------------|--------------------|-------------------|
| 1.5 OVERRIDING | Version 8.0 | 12/02/2024 |
|-----------------------|--------------------|-------------------|

Investigatory Criteria

An area of verge immediately adjacent to the carriageway generally rutted below the level of the carriageway.

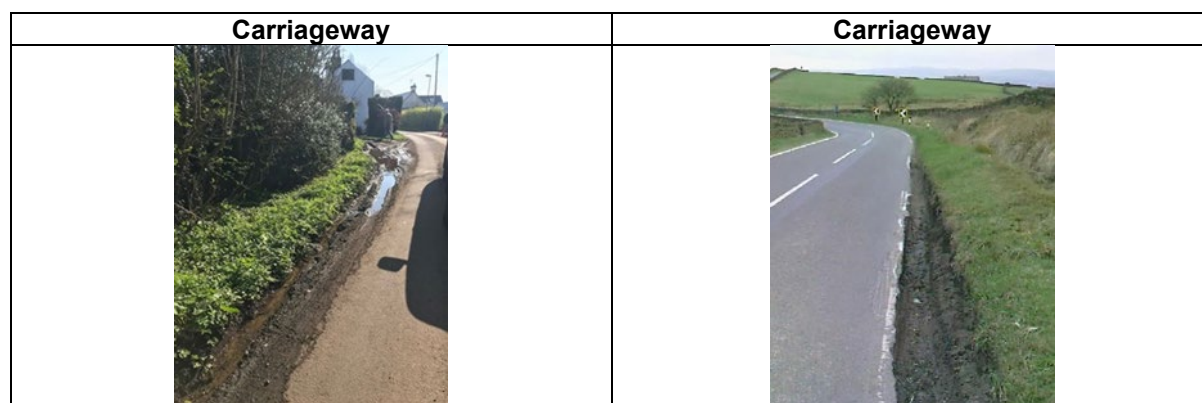
Minimum Criteria where applicable

| | |
|--------------------|--|
| Carriageway | Greater than 100mm drop-off at the edge of an unimpeded road |
|--------------------|--|

SAMs Defect Codes and Asset to be logged against

RC12 Carriageway Edge Deterioration (against Highway Network)

Sample Photograph



Response

| | |
|---|---|
| 1 | Undertake defect reporting process. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do |

Notes and Further Investigation

Edge deterioration that has broken away should be reinstated as like for like.

| | | |
|--|--------------------|-------------------|
| 1.6 DEFECTIVE HIGH FRICTION SURFACING | Version 8.0 | 12/02/2024 |
|--|--------------------|-------------------|

Investigatory Criteria

A loss of aggregate or fatting up within a high friction surface or slippery covers within a high friction surface.

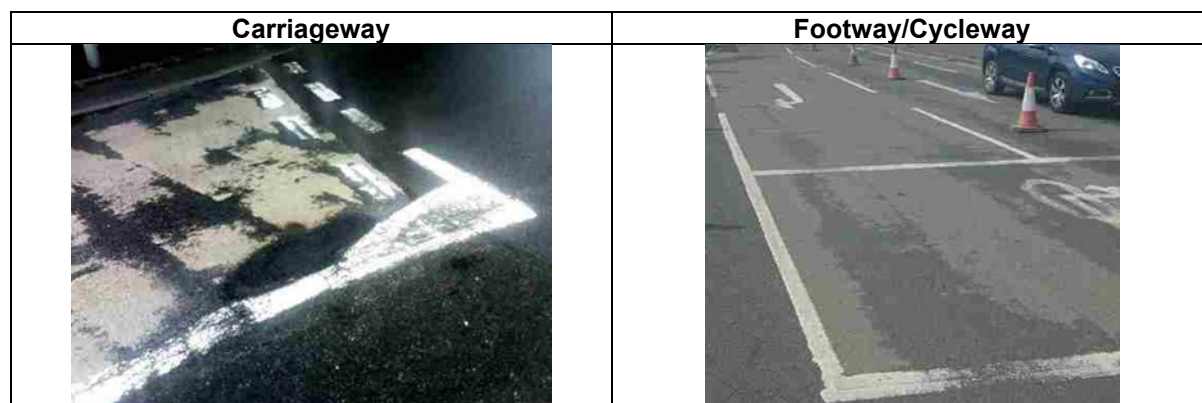
Minimum Criteria where applicable

| | |
|-------------------------------|---|
| Carriageway | Report any areas where serious loss of skidding resistance suspected. |
| Footway & Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

NR04 High Friction Surfacing Defect (against Anti-skid)

Sample Photograph



Response

| | |
|---|---|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | The system will generate a Reactive Planned job for a permanent repair/investigation, this will route to asset owner. |

Notes and Further Investigation

Permanent action to be undertaken in accordance with the Council's Skidding Policy.
 All slippery covers within high friction surfacing, see 1.10 Defective Ironwork

| | | |
|---|--------------------|-------------------|
| 1.7 DANGEROUS OR OBSTRUCTING TREES | Version 8.0 | 12/02/2024 |
|---|--------------------|-------------------|

Investigatory Criteria

A tree requires investigation when it is: obviously diseased, leaning precariously towards the highway (especially if the inspector considers it to have moved towards the highway since the last inspection), or it is damaged or has damaged or dead limbs which could fall directly onto the highway user or is obstructing.



Minimum Criteria where applicable

| | |
|-------------------------------|--|
| Carriageway | The minimum vertical clearance over the carriageway needs to take account of the traffic using the route (minimum clearance of 5m). |
| Footway & Cycleway | Obstructing the clear passage of pedestrians/cyclists forcing them off the footway/cycleway, or it reduces the vertical clearance above the footway to less than 2.1m or 2.3m on a cycleway. |

SAMs Defect Codes and Asset to be logged against

| | |
|---|---|
| Carriageway: NR26 Carriageway Tree Defective (against Tree) | Footway: NR27 Footway Tree Defective (against Tree) |
|---|---|

Sample Photograph

| Carriageway | Footway/Cycleway |
|---|--|
|  |  |

Response

| | |
|---|---|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do |
| 3 | If further assessment/investigatory work is required, select tree inspection report and this will be routed to the tree inspector for completion. |
| 4 | Select non DCC asset in ownership to initiate noticing procedure via Highways Hub for overgrown vegetation if appropriate. |

Notes and Further Investigation

Separate specialist technical tree inspections are completed by the designated tree inspectors.

Responsibilities for landowners/occupiers with trees adjacent to the highway, and the powers of DCC in this respect, are contained in Section 154 of the Highways Act 1980. Where possible, the landowner/occupier should be given the opportunity to undertake the appropriate remedial work and retain ownership of any waste material. This is undertaken through the enforcement process in the highways hub if selected.

When a dangerous or damaged tree is identified as a safety defect, details of the tree should be forwarded to the Tree Inspector for further investigation and assessment.

| | | |
|--|--------------------|-------------------|
| 1.8 OBSCURED VISIBILITY, OVERGROWN HEDGES, BUSHES & VERGES AND DANGEROUS VEGETATION | Version 8.0 | 12/02/2024 |
|--|--------------------|-------------------|

Investigatory Criteria

| |
|--|
| Obscured highway visibility due to overgrown/overhanging vegetation, including obscured traffic signal heads, street light lamp, regulatory/warning traffic sign or bollard. Reports of dangerous vegetation |
|--|

Minimum Criteria where applicable

| | |
|-------------------------------|--|
| Carriageway | Overhanging/overgrown in sight lines at bends, junctions or laybys. Overgrown hedges and bushes when obstructing the highway user; or obstructing the clear passage of the highway user or it is forcing vehicles, cyclist or pedestrians away from the nearside of the carriageway by more than 1m; or vehicles have to cross the centreline marking; or if cyclists have to cross a cycle lane boundary marking. |
| Footway & Cycleway | Overhanging/overgrown in sight lines at locations where pedestrians/cyclists are encouraged to cross the carriageway; or it is overhanging the highway and obstructing the clear passage of pedestrians/cyclists forcing them off the footway/cycleway, or it reduces the vertical clearance above the footway to less than 2.1m or 2.3m on a cycleway. |

SAMs Defect Codes and Asset to be logged against

| | |
|---|---|
| <p>Carriageway: RC14 Carriageway Verge Defective (against Highway Network) RC15 Carriageway Hedge Defective (against Hedge) NR27 Dangerous vegetation (against Highway Network)</p> | <p>Footway: RF08 Footway Verge Defective (against Highway Network) RF09 Footway Hedge Defective (against Hedge) NR27 Dangerous vegetation (against Highway Network)</p> |
|---|---|

Sample Photograph

| Carriageway | Footway/Cycleway |
|---|--|
|  |  |

Response

| | |
|---|--|
| 1 | Undertake defect reporting process, creating hedge asset first if it doesn't exist in the system. |
| 2 | Cut back overgrowth using the Fix Now function or if required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | Select non DCC asset in ownership to initiate noticing procedure via Highways Hub for overgrown vegetation if appropriate. |

Notes and Further Investigation

Responsibilities for landowners/occupiers with hedges, trees and bushes adjacent to the highway, and the powers of DCC in this respect, are contained in Section 154 of the Highways Act 1980.

Where possible, the landowner/occupier should be given the opportunity to undertake the appropriate remedial work and retain ownership of any waste material. However, this should be completed within the output risk assessed defect response time provided for inclusion in the correspondence and any other information provided in the notes field. This is undertaken through the enforcement process in the highways hub if selected.

Dangerous vegetation includes the reports of ragwort and Japanese knotweed.

| | | |
|--------------------------------|--------------------|-------------------|
| 1.9 DEFECTIVE ROADMARKS | Version 8.0 | 12/02/2024 |
|--------------------------------|--------------------|-------------------|

Investigatory Criteria

Faded or missing regulatory lines such as stop lines, double white line systems and parking enforcement lines.

Minimum Criteria where applicable

| | |
|-------------------------------|-----|
| Carriageway | N/A |
| Footway & Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

NR05 Highway Markings Defective (against Highway Network)
 NR06 Highway Studs Defective (against Highway Network)

Sample Photograph



Response

| | |
|---|--|
| 1 | Undertake defect reporting process. |
| 2 | The system will generate a Reactive Planned job for a permanent repair/investigation, this will route to asset owner. Advice to be sought from Traffic and Safety as required. |

Notes and Further Investigation

Non regulatory lining and missing studs are to be identified for lining and stud programmes and should be forwarded to the Asset Owner for Carriageways and Footways for further investigation and assessment.

Major junction lining faults to be passed to Asset Owner for Carriageways and Footways.

| | | |
|--------------------------------|--------------------|-------------------|
| 1.10 DEFECTIVE IRONWORK | Version 8.0 | 12/02/2024 |
|--------------------------------|--------------------|-------------------|

Investigatory Criteria

A missing or broken cover to any chamber/box. A collapsed or collapsing chamber. A high or low cover or frame when the cover within the frame or the frame itself, is above or below the immediate surrounding carriageway level by 40mm or greater. A rocking cover when the rocking is greater than 40mm. A grating where the slots run parallel to the carriageway edge without lateral infill members. A slippery cover within an area of high friction surfacing.



Minimum Criteria where applicable

| | |
|-------------------------------|-------------------------------------|
| Carriageway | High/low or rocking cover +/- 40mm. |
| Footway & Cycleway | High/low or rocking cover +/- 20mm. |

SAMs Defect Codes and Asset to be logged against

| | |
|--|--|
| <p>Carriageway: RC16 Carriageway Service Cover Defective (against Access Chamber) RC17 Carriageway Gully Missing Lid (against Gully) RC18 Carriageway Gully Broken Lid (against Gully) RC19 Carriageway Ironwork Defective (against Access Chamber)</p> | <p>Footway: RF10 Footway Service Cover Defective (against Access Chamber) RF11 Footway Gully Missing Lid (against Gully) RF12 Footway Gully Broken Lid (against Gully) RF13 Footway Ironwork Defective (against Access Chamber)</p> |
|--|--|

Sample Photograph

| Carriageway | Footway/Cycleway |
|---|--|
|  |  |

Response

| | |
|---|--|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | If related to statutory undertaker's equipment tick Section 81 and follow New Roads and Street Works Area (NRSWA) Section 81 Defective Apparatus Process Map. |

Notes and Further Investigation

Rocking covers in urban areas that move less than 40mm but under traffic cause noise levels unacceptable to persons living in the vicinity, are not a safety defect but should be notified to relevant utility as soon as possible, using the Section 81 notice if appropriate.

The footway investigatory criteria will be applied to a carriageway at defined pedestrian crossing points, or where pedestrians are encouraged to cross, or where there is a marked cycle lane on the carriageway, or where there is a high risk to cyclists on the carriageway.

| | | |
|-----------------------------------|--------------------|-------------------|
| 1.11 DEFECTIVE CATTLEGRIDS | Version 8.0 | 12/02/2024 |
|-----------------------------------|--------------------|-------------------|

Investigatory Criteria

Any damage to the cattle grid panel or structure or a loose panel, rendering it dangerous; or damage to the associated fence or gate rendering it dangerous or not stock proof or when the voids between the bars are clogged up with debris to the point that stock can walk across without impediment.

Minimum Criteria where applicable

| | |
|-------------------------------|-----|
| Carriageway | N/A |
| Footway & Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

NR07 Cattle Grid Defective (against Cattle Grid)

Sample Photograph



Response

| | |
|---|--|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | Use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | The system will generate a Reactive Planned job for a permanent repair/investigation, this will route to asset owner. Advice to be sought from Traffic and Safety as required. |

Notes and Further Investigation

Contact the landowner to remove stock if required, or request that stock is removed to enable side gates to be used if practicable.

| | | |
|---------------------------------------|--------------------|-------------------|
| 1.12 DEFECTIVE OVERHEAD CABLES | Version 8.0 | 12/02/2024 |
|---------------------------------------|--------------------|-------------------|

Investigatory Criteria

Low cables across carriageways, footways and cycleways.
 A supporting pole or structure that is damaged or leaning dangerously, adjacent to the highway that could fall on to it or affect the cable it is supporting across the highway.

Minimum Criteria where applicable

| | |
|-------------------------------|--|
| Carriageway | Vertical clearance to lower than 5m (16' 6") (Chapter 4 Traffic Signs Manual) Cycleway – vertical clearance to lower than 2.3m (7'6') |
| Footway & Cycleway | Footway - vertical clearance to lower than 2.1m (6' 10") Cycleway - vertical clearance to lower than 2.3m (7' 6") |

SAMs Defect Codes and Asset to be logged against

UR01 Overhead Wires – Dangerous (against Highway Network)

Sample Photograph



Response

| | |
|---|--|
| 1 | Undertake defect reporting process. |
| 2 | Use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | Overhead cables that relate to statutory undertaker's equipment tick Section 81 and follow New Roads and Street Works Area (NRSWA) Section 81 Defective Apparatus Process Map. |

Notes and Further Investigation

The height of a cable should be estimated and under no circumstances should it be actually measured by highway inspectors. Measurements should only be taken by a person holding a valid proximity permit.

| | | |
|---|--------------------|-------------------|
| 1.13 DEFECTIVE ROADWORKS SIGNING | Version 8.0 | 12/02/2024 |
|---|--------------------|-------------------|

Investigatory Criteria

Any roadworks signing (including DCC or Statutory Undertakers works, or at scaffold or skips sites) that is not in accordance with Chapter 8.



Minimum Criteria where applicable

| | |
|-------------------------------|-----|
| Carriageway | N/A |
| Footway & Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

NR26 Defective Roadworks Signing (against Highways Network, Skip Licence, Scaffolding Licence)

Sample Photograph

| Carriageway | Footway/Cycleway |
|--|---|
|  |  |

Response

| | |
|---|--|
| 1 | Undertake defect reporting process (it is not required to create a skip/scaffolding licence asset to log a defect against these as they are temporary assets). |
| 2 | Use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | If roadworks relate to non DCC works, tick Enforcement Required and select which type and system will forward. |

Notes and Further Investigation

Inspectors should contact the Highways Hub or NRSWA Inspector during office hours to report inadequate signing or guarding. Determine if a Section 65 notice is required.

| | | |
|--|--------------------|-------------------|
| 1.14 OBSTRUCTIONS-MATERIALS, GOODS, EQUIPMENT AND SIGNS | Version 8.0 | 12/02/2024 |
|--|--------------------|-------------------|

Investigatory Criteria

| |
|---|
| Materials, goods, canopies, equipment or illegal signs that impede or obstruct pedestrians/cyclists, or restrict visibility |
|---|





Minimum Criteria where applicable

| | |
|-------------------------------|---|
| Carriageway | Vertical clearance to permissible overhanging signs or banners of less than 5m for carriageway |
| Footway & Cycleway | Vertical clearance to overhanging signs or banners on a footway of less than 2.1m or 2.3m on a cycleway |

SAMs Defect Codes and Asset to be logged against

| | |
|---|---|
| Carriageway: RC20 Carriageway Obstruction (against Highway Network) | Footway: RF14 Footway Obstruction (against Highway Network) |
|---|---|

Sample Photograph

| Carriageway | Carriageway | Carriageway | Footway/Cycleway |
|---|---|--|---|
|  |  |  |  |

Response

| | |
|---|--|
| 1 | Undertake defect reporting process. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | If highway notice required tick Enforcement Required and select type and system will forward. |

Notes and Further Investigation

| |
|--|
| Where a notice is required, a Section 148 depositing anything whatsoever on the highway notice must be issued. Banners over the highway must be authorised under the 'Conditions for Erection of a Banner over the Public Highway'. |
|--|

| | | |
|-----------------------------|--------------------|-------------------|
| 1.15 CRACKS AND GAPS | Version 8.0 | 12/02/2024 |
|-----------------------------|--------------------|-------------------|

Investigatory Criteria

A crack or gap meeting the dimension criteria below:




Minimum Criteria where applicable

| | |
|-------------------------------|--|
| Carriageway | Void is greater than 40mm deep, 20mm width and 200mm in length |
| Footway & Cycleway | Void is greater than 20mm deep, 20mm width and 200mm in length |

SAMs Defect Codes and Asset to be logged against

| | |
|---|---|
| Carriageway: RC21 Carriageway Cracks and Gaps (against Highway Network) | Footway: RF15 Footway Cracks and Gaps (against Highway Network) |
|---|---|

Sample Photograph

| Carriageway | Footway/Cycleway | Footway/Cycleway |
|--|--|--|
|  |  |  |

Response

| | |
|---|--|
| 1 | Undertake defect reporting process. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | Repair as appropriate. |
| 4 | If related to NRSWA Reinstatement having confirmed through consultation with NRSWA inspector/Streetworks team, tick to start the Reinstatement Guarantee Process. |

Notes and Further Investigation

This defect does not apply to a kerb. For defects relating to kerbs see defect 1.28 Damaged Kerb/Channel.
 This defect is usually caused by the loss of mortar or the movement of flags and pedestrians may catch their heel or toes in the void.
 The footway investigatory criteria will be applied to a carriageway at defined pedestrian crossing points, where pedestrians are encouraged to cross, where there is a marked cycle lane on the carriageway or where there is a high risk to cyclists on the carriageway.
 If defect forms part of possible NRSWA reinstatement failure contact NRSWA inspector to establish if within guarantee period. If it is confirmed within period tick Reinstatement to start the Reinstatement Guarantee process.

| | | |
|--|--------------------|-------------------|
| 1.16 ABRUPT LEVEL DIFFERENCE/TRIP | Version 8.0 | 12/02/2024 |
|--|--------------------|-------------------|

Investigatory Criteria

An abrupt level difference in the carriageway when it has a vertical displacement.
 A sharp edged defect on a footway/cycleway with a vertical deviation. For issues with Kerbs please see 1.28 Damaged Kerb/Channel.

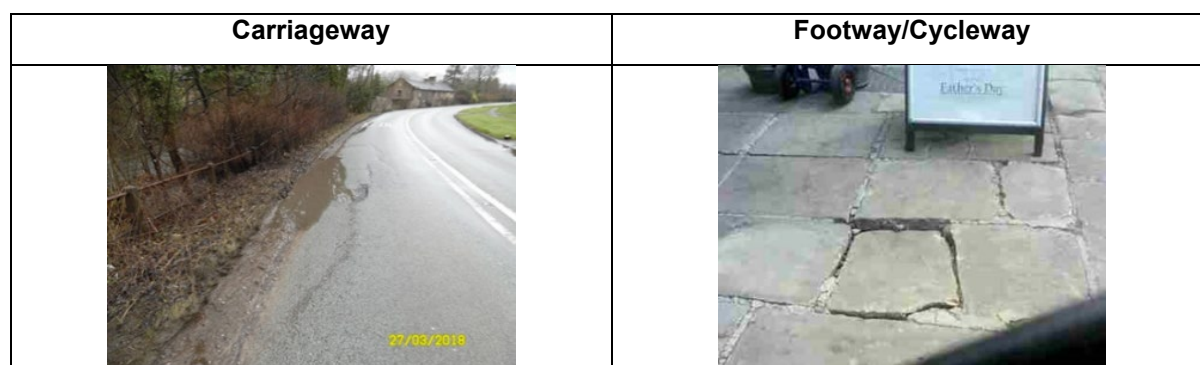
Minimum Criteria where applicable

| | |
|-------------------------------|--------------------------------|
| Carriageway | Void is greater than 40mm deep |
| Footway & Cycleway | Void is greater than 20mm deep |

SAMs Defect Codes and Asset to be logged against

| | |
|---|---|
| Carriageway: RC22 Carriageway Trip Hazard (against Highway Network) | Footway: RF16 Footway Tactile Slabs Trip Hazard (against Highway Network) RF17 Footway Trip Hazard (against Highway Network) |
|---|---|

Sample Photograph



Response

| | |
|---|---|
| 1 | Undertake defect reporting process. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | Repair as appropriate on footway/cycleway. |
| 4 | If further assessment/investigatory work is required, select further investigation required and a Reactive Planned job will be created and can be assigned to the relevant asset owner ie structures. |
| 5 | If related to NRSWA Reinstatement having confirmed through consultation with NRSWA inspector/Streetworks team, tick to start the Reinstatement Guarantee Process. |

Notes and Further Investigation

Examples of this defect include: uneven or broken flags, blocks, pavements; channels or edgings; damaged steps.

The footway minimum dimensions will be applied to marked pedestrian crossing points within the carriageway, e.g. pedestrian crossings and pedestrian phase signalled crossings.

If defect forms part of possible NRSWA reinstatement failure contact NRSWA inspector to establish if within guarantee period. If it is confirmed within period tick Reinstatement to start the Reinstatement Guarantee process.

| | | |
|--------------------------|--------------------|-------------------|
| 1.17 ROCKING FLAG | Version 8.0 | 12/02/2024 |
|--------------------------|--------------------|-------------------|

Investigatory Criteria

A moving flag, paviour, block or channel where on edge rises or falls.

Minimum Criteria where applicable

| | |
|-------------------------------|-------------------|
| Carriageway | Greater than 40mm |
| Footway & Cycleway | Greater than 20mm |

SAMs Defect Codes and Asset to be logged against

| | |
|---|---|
| Carriageway: RC23 Carriageway Modular Defective (against Highway Network) | Footway: RF18 Footway Modular Defective (against Highway Network) |
|---|---|

Sample Photograph



Response

| | |
|---|--|
| 1 | Undertake defect reporting process. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | Relay or undertake an action to reduce the risk of a rocking flag. |

Notes and Further Investigation

| | | |
|--|--------------------|-------------------|
| 1.18 DAMAGED ROAD RESTRAINT SYSTEMS | Version 8.0 | 12/02/2024 |
|--|--------------------|-------------------|

Investigatory Criteria

A length of vehicular restraint system or safety fence, pedestrian guardrail or bridge parapet or retaining wall parapet with obvious impact damage; or missing, loose.

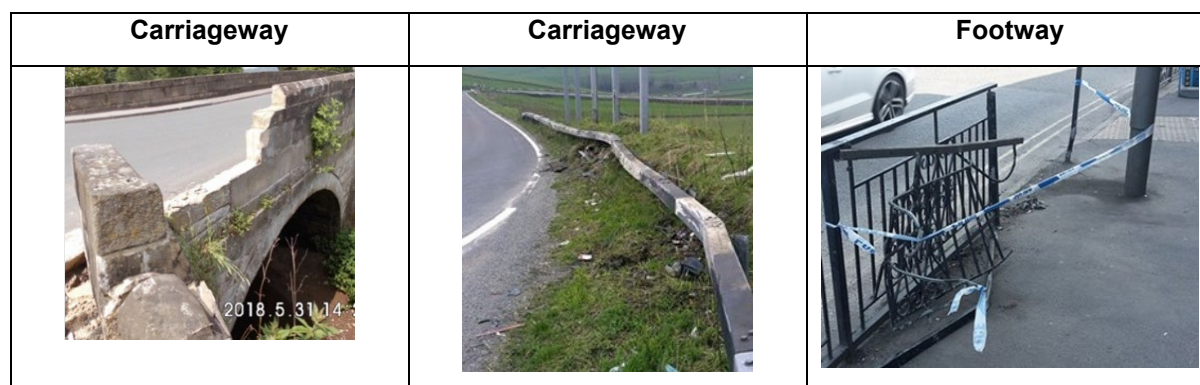
Minimum Criteria where applicable

| | |
|-------------------------------|-----|
| Carriageway | N/A |
| Footway & Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

NR08 Parapet Defective (against Bridge/Footbridge)
 NR09 Ped Guard Rail Defective (against Pedestrian Guardrail)
 NR10 Safety Fencing Defective (against Safety Fencing)

Sample Photograph



Response

| | |
|---|---|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | Use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do, or to remove the debris if possible safely under a reduce risk activity and RMTOM. |
| 3 | The system will generate a Reactive Planned job which can include the removal of debris if too extensive and a permanent repair/investigation, this will route to asset owner. |

Notes and Further Investigation

Vehicle restraint systems at railway level crossings and railway bridges must be inspected regardless of ownership and any defects reported to Network Rail as appropriate.

When damage has been noted to a bridge or retaining wall parapet, the Inspector should contact the Bridges and Structures section or Highways Hub (outside office hours) for action.

| | | |
|---|--------------------|-------------------|
| 1.19 DEFECTIVE BOUNDARY FENCES & WALLS | Version 8.0 | 12/02/2024 |
|---|--------------------|-------------------|

Investigatory Criteria

A length of boundary fence or wall with impact or other damage that would render it dangerous, or ineffective for stock proofing. A fence with an exposed length of tubular metal rail.

Minimum Criteria where applicable

| | |
|-------------------------------|-----|
| Carriageway | N/A |
| Footway & Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

NR11 Fencing Defective (against Boundary Fences)

Sample Photograph

| Carriageway | Footway/Cycleway |
|--|---|
|  |  |

Response

| | |
|---|---|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | Use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do, or to remove the debris if possible safely under a reduce risk activity and RMTOM. |
| 3 | The system will generate a Reactive Planned job which can include the removal of debris if too extensive and a permanent repair/investigation, this will route to asset owner. |
| 4 | Arrange for livestock to be removed from highway immediately. |
| 5 | If private fence/wall inform owner. |

Notes and Further Investigation

This defect also applies to a boundary hedge where the stock is straying on to the highway. The maintenance category refers to the carriageway, footway and/or cycleway the boundary fence protects.

Ownership of the boundary wall should be determined and, in the case of a private wall, the private landowner is informed.

If a highway wall, ring Structures section or Highways Hub (outside office hours) for action, they will automatically receive a system notification. When appropriate use local building control.

| | | |
|---|--------------------|-------------------|
| 1.20 STREET LIGHTS, ILLUMINATED TRAFFIC SIGNS & ILLUMINATED BOLLARDS | Version 8.0 | 12/02/2024 |
|---|--------------------|-------------------|

Investigatory Criteria

Any damage to a streetlight, externally and internally illuminated sign or bollard, where the electricity supply is exposed, or the column or lamp is unstable. An externally or internally illuminated sign or bollard where the illumination does not work.

Minimum Criteria where applicable

| | |
|-------------------------------|-----|
| Carriageway | N/A |
| Footway & Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

SL51 Cable Exposed/Damaged (against relevant lighting asset)
 SL52 Door Missing/Damaged (against relevant lighting asset)
 SL53 Hanging Equipment (against relevant lighting asset)
 SL54 Damaged Equipment (against relevant lighting asset)
 SL55 RTC/Knocked Down Equipment (against relevant lighting asset)

Sample Photograph

| Carriageway | Footway/Cycleway |
|---|--|
|  |  |

Response

| | |
|---|--|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | The system will generate a Reactive Planned job for a permanent repair/investigation, this will route to the asset owner. |
| 4 | If urgent defect then also ring 01629 531588, if no response 01629 538630, then 01629 531932. |

Notes and Further Investigation

Under no circumstances should the Highway Inspector attempt to affect a repair.

| | | |
|--|--------------------|-------------------|
| 1.21 DEFECTIVE ROAD TRAFFIC SIGNS AND POSTS | Version 8.0 | 12/02/2024 |
|--|--------------------|-------------------|

Investigatory Criteria

Any regulatory/mandatory sign or warning signs relating to bridges, level crossings and deviation of route (bends) that is damaged, missing, faded, or covered in dirt/algae. Any type of sign or bollard that is a danger to road users. A road sign obscured by vegetation should be logged under 1.8 to remove the vegetation.

Minimum Criteria where applicable

| | |
|-------------------------------|-----|
| Carriageway | N/A |
| Footway & Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

NR14 Hwy Sign Defective (against Signs)
 NR15 Hwy Sign /Dirty (against Signs)
 NR16 Bollard Non-Illum Defective (against Non-illuminated Bollard)

Sample Photograph

Roadside



Response

| | |
|---|---|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do, or to remove the debris if possible safely under a reduce risk activity and RMTOM. |
| 3 | The system will generate a Reactive Planned job which can include the removal of debris if too extensive and a permanent repair/investigation, this will route to asset owner. |

Notes and Further Investigation

Vegetation obscuring signage should be logged against the asset obscuring, and these details can be found in section 1.8.

| | | |
|---|--------------------|-------------------|
| 1.22 DEFECTIVE PERMANENT TRAFFIC SIGNALS | Version 8.0 | 12/02/2024 |
|---|--------------------|-------------------|

Investigatory Criteria

Any defect on any type of permanent traffic signal, zebras, vehicle activated signs and flashing amber warning lights including traffic signal heads which are out of alignment and therefore not visible to highway users. Electrical or control boxes that are open or tampered with.

Minimum Criteria where applicable

| | |
|-------------------------------|-----|
| Carriageway | N/A |
| Footway & Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

NR17 Traffic Signals Defective (against IMTRAC Site asset)

Sample Photograph

Roadside



Response

| | |
|---|--|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | The system will generate a Reactive Planned job for a permanent repair/investigation, this will route to the asset owner. |
| 4 | If urgent defect then also ring 0345 603 1433, if no response 01629 538625 |

Notes and Further Investigation

| | | |
|---------------------------|--------------------|-------------------|
| 1.23 DAMAGED STEPS | Version 8.0 | 12/02/2024 |
|---------------------------|--------------------|-------------------|

Investigatory Criteria

A sharp edged defect with a vertical deviation from the adjacent surrounding area.

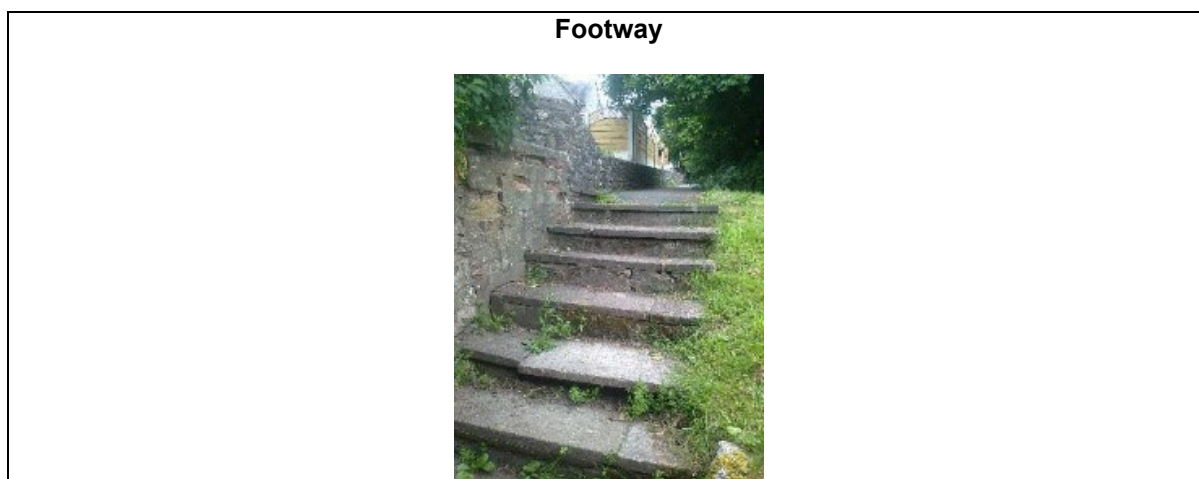
Minimum Criteria where applicable

| | |
|-----------------------------|------|
| Carriageway | N/A |
| Footway and Cycleway | 20mm |

SAMs Defect Codes and Asset to be logged against

RF19 Footway Steps Defective (against Steps)

Sample Photograph



Response

| | |
|---|--|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |

Notes and Further Investigation

| | | |
|------------------------------|--------------------|-------------------|
| 1.24 DAMAGED HANDRAIL | Version 8.0 | 12/02/2024 |
|------------------------------|--------------------|-------------------|

Investigatory Criteria

A loose or broken handrail.

Minimum Criteria where applicable

| | |
|-----------------------------|-----|
| Carriageway | N/A |
| Footway and Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

NR18 Hand Rails Defective (against Hand Rail)

Sample Photograph



Response

| | |
|---|--|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | Use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | The system will generate a Reactive Planned job for a permanent repair/investigation, this will route to the asset owner. |

Notes and Further Investigation

| | | |
|--|--------------------|-------------------|
| 1.25 DEFECTIVE ESCAPE LANES/ARRESTER BEDS | Version 8.0 | 12/02/2024 |
|--|--------------------|-------------------|

Investigatory Criteria

Any obstruction in the vicinity of the lane. Weeds or compacted/uneven/lack of/contaminated material which prevent the effect of the arresting capability of the material.

Minimum Criteria where applicable

| | |
|-----------------------------|-----|
| Carriageway | N/A |
| Footway and Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

NR19 Esc Ln/Arrest Bed Defective (against Highways Network))

Sample Photograph



Response

| | |
|---|--|
| 1 | Undertake defect reporting process. |
| 2 | Use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | The system will generate a Reactive Planned job for a permanent repair/investigation, this will route to the asset owner. |

Notes and Further Investigation

During the winter service period, consideration must be given to applying salt to the arrester bed material to prevent freezing.

| | | |
|--|--------------------|-------------------|
| 1.26 CARRIAGEWAY/FOOTWAY/CYCLEWAY DETERIORATION | Version 8.0 | 12/02/2024 |
|--|--------------------|-------------------|

Investigatory Criteria

Includes spalling, depressions, bumps and rutting. The void from missing or sunken preformed flags, slabs, channels or paviments, pre-formed modules

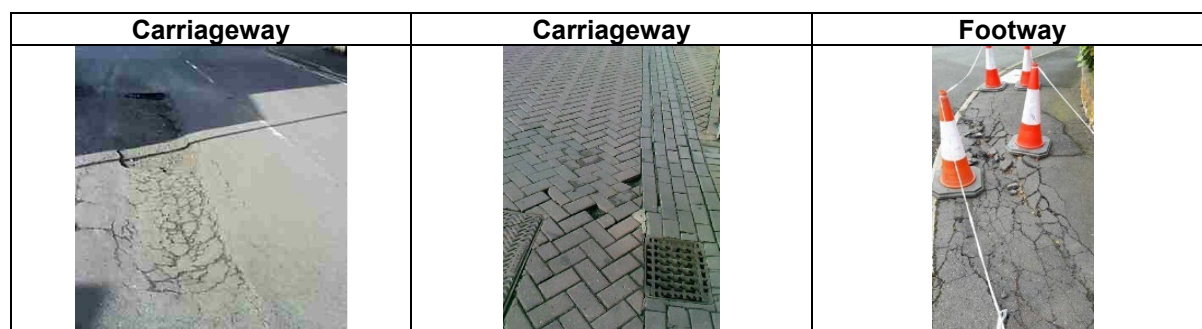
Minimum Criteria where applicable

| | |
|-------------------------------|------|
| Carriageway | 40mm |
| Footway & Cycleway | 20mm |

SAMs Defect Codes and Asset to be logged against

| | |
|---|--|
| <p>Carriageway:</p> <p>RC24 Carriageway Deterioration <= 20 Sqm (against Highway Network)</p> <p>RC25 Carriageway Deterioration >20 Sqm (against Highway Network)</p> <p>RC26 Carriageway Subsidence (against Highway Network)</p> | <p>Footway:</p> <p>RF20 Footway Deterioration <=20 Sqm (against Highway Network)</p> <p>RF21 Footway Deterioration >20 Sqm (against Highway Network)</p> <p>RF22 Footway Subsidence (against Highway Network)</p> |
|---|--|

Sample Photograph



Response

| | |
|---|---|
| 1 | Undertake defect reporting process |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | Investigate permanent repair |
| 4 | If further assessment/investigatory work is required, select further investigation required and a Reactive Planned job will be created and can be assigned to the relevant asset owner ie structures. |
| 5 | If related to NRSWA Reinstatement having confirmed through consultation with NRSWA inspector/Streetworks team, tick to start the Reinstatement Guarantee Process. |

Notes and Further Investigation

For some carriageway defects it may not be possible to complete a permanent repair within the required risk assessed defect response time due to the size and location of the defect. In these cases an interim response should be provided, such as providing warning signs on the approaches to the defect, or minor patching within the risk assessed defect response time. A request for a

permanent repair should be forwarded to the area district manager where further investigation should be undertaken for possible inclusion in the forward works programme.

The footway investigatory criteria will be applied to a carriageway at defined pedestrian crossing points, or where pedestrians are encouraged to cross, or where there is a marked cycle lane on the carriageway, or where there is a high risk to cyclists on the carriageway.

If defect forms part of possible NRSWA reinstatement failure contact NRSWA inspector to establish if within guarantee period. If it is confirmed within period tick Reinstatement to start the Reinstatement Guarantee process.

| | | |
|--|--------------------|-------------------|
| 1.27 DEFECTIVE TRAFFIC CALMING FEATURES | Version 8.0 | 12/02/2024 |
|--|--------------------|-------------------|

Investigatory Criteria

Missing or loose sections within constructed and modular calming features or missing or proud bolts within a modular traffic calming feature.

Minimum Criteria where applicable

| | |
|-------------------------------|------|
| Carriageway | 40mm |
| Footway & Cycleway | 20mm |

SAMs Defect Codes and Asset to be logged against

NR20 Traffic Calming Defective (against Full Width Road Hump/Speed Cushion/Raised Junction)

Sample Photograph

Carriageway



Response

| | |
|---|--|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | The system will generate a Reactive Planned job for a permanent repair/investigation, this will route to the asset owner. |

Notes and Further Investigation

| | | |
|-----------------------------------|--------------------|-------------------|
| 1.28 DAMAGED KERB/ CHANNEL | Version 8.0 | 12/02/2024 |
|-----------------------------------|--------------------|-------------------|

Investigatory Criteria

| |
|--|
| (a) within a pedestrian or tactile crossing point (b) all other locations |
|--|



Minimum Criteria where applicable

| | |
|--|-----------------------------------|
| a) Pedestrian or tactile crossing point | Missing/damaged/rocking - 20mm |
| b) all other locations | Each location to be risk assessed |

SAMs Defect Codes and Asset to be logged against

| | |
|--|---|
| Carriageway: RC27 Carriageway Kerb Defective (code to be used if no footway present) (against Highway Network) | Footway: RF23 Footway Kerb Defective (code to be used if footway present) (against Highway Network) |
|--|---|

Sample Photograph

| | |
|--|---|
| Pedestrian or tactile crossing point | All other locations |
|  |  |

Response

| | |
|---|--|
| 1 | Undertake defect reporting process. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do. |
| 3 | Investigate permanent repair. |

Notes and Further Investigation

| |
|--|
| |
|--|

| | | |
|------------------------------|--------------------|-------------------|
| 1.29 STREET FURNITURE | Version 8.0 | 12/02/2024 |
|------------------------------|--------------------|-------------------|

Investigatory Criteria

Damage to parking meters, speed cameras, grit bins, bus stop related equipment, public rights of way equipment.

Minimum Criteria where applicable

| | |
|-----------------------------|-----|
| Carriageway | N/A |
| Footway and Cycleway | N/A |

SAMs Defect Codes and Asset to be logged against

NR21 Parking Meters Defective (against Parking Meter)
 NR22 Grit Bin Defective (against Grit Bin)
 NR23 Safety Cameras Defective (against Safety Camera)
 NR24 Public Transport Defect (against Bus Shelter/Bus Stop/Real-time Passenger Information Screens)
 NR25 Defect on Right of Way (against Sign/Stile/Gate)

Sample Photograph



Response

| | |
|---|---|
| 1 | Undertake defect reporting process, creating asset first if it doesn't exist in the system. |
| 2 | If required use the Reduce Risk function to either: request signing and guarding, or closure of road/footway/cycleway, or stay with defect to reduce risk if safe to do, or to remove the debris if possible safely under a reduce risk activity and RMTOM. |
| 3 | The system will generate a Reactive Planned job which can include the removal of debris if too extensive and a permanent repair/investigation, this will route to asset owner. |

Notes and Further Investigation

Liaison may be required with Traffic Signals/Street Lighting.

Only defects against public rights of way assets that are located within the highway should be recorded. If a highway includes a section of public right of way then defects such as potholes should be recorded against the highway network as this takes precedence.

Where a grit bin is damaged and requires replacement, provide in the notes if a new plaque is required, if it is not remove and send to Highways Hub.

APPENDIX C – REDUCED RISK SIGNAGE GUIDANCE

Introduction

Warning signs can play an important part in improving road safety. However, they should only be used where there is a specific safety issue or hazard, not to sign readily apparent conditions or routine features of the road, such as bends and junctions.

Overuse of warning signs can dilute their effectiveness and tends to bring them into disrepute.

Warning signs should only be installed where there is an identified hazard or road safety problem, and not to solely meet a perceived need. Unjustified signing should not be used at individual locations simply in response to complaints from the public.

Care should be taken to ensure that a route is treated consistently, especially where it crosses the boundary between two traffic authorities.

Permitted signs for use on Reactive Maintenance operations in conjunction with the Highways Infrastructure Asset Safety Inspection Manual (HIASIM), and the Reactive Maintenance Teams Operational Manual (RMTOM)



Uneven Road Sign – Diagram 556

Objective: To warn of danger arising from longitudinal or transverse irregularities in the road surface which at the normal speed of traffic might seriously impair control of a vehicle.

When to use: The use of this sign should be regarded as temporary, examples may include a landslip, subsidence or sunken trenches. It should not normally be used where potholes have been identified.

When to remove: When the defect has been remedied.



Flood Warning Sign – Diagram 554A

Objective: To warn of danger arising from the presence of standing water on the road surface which at the normal speed of traffic might seriously impair control of a vehicle.

When to use: To be displayed for as long as the hazard continues to exist or if it is expected to recur in the near future e.g. Defined flooding hotspots.

When to remove: When the hazard no longer exists.

If the water depth makes the road impassable, a “ROAD CLOSED” sign, placed at either end of the closure should be used, and the Highways Hub notified.



Ice Warning Sign – Diagram 554.2

- Objective:** To be used when a route is unusually dangerous as a result of extensive icing or heavy snowfalls.
- When to use:** Typical areas of network may include ice banding from adjacent run-off, standing water in the carriageway due to drainage problems or following an RTC where Ice may have been a contributory factor. These signs may be used on any length of road irrespective of whether it is located on a salted route.
- When to remove:** The signs should be removed when the hazard no longer exists.
- Ice signs should only remain permanently following consultation with the Traffic and Safety section.



Slippery Road Warning Sign – Diagram 557 or Mud on Road sign

- Objective:** For use where the danger of vehicles skidding is greater than normal.
- When to use:** Reasons for use may include brake fluid, diesel, oil or mud on the road.
- When to remove:** When the hazard no longer exists.

If the mud on the road is related to a site development, the DCC Clerk of Works team should be contacted immediately to advise of safety concerns. They may already have a plan in place for cleansing the adjacent roads. Out of hours this decision will be made in conjunction with the Out of Hours Decision Maker.

REACTIVE MAINTENANCE GANGS ATTENDING MUST UNDERTAKE DYNAMIC RISK ASSESSMENT OF ALL REACTIVE MAINTENANCE TASKS TO ENSURE THE CARRIAGEWAY IS SAFE TO RE-OPEN TO LIVE TRAFFIC UPON CLEARANCE OF ANY DEBRIS OR SPILLAGE, IF A SLIPPERY ROAD SIGN IS USED REASONS FOR PLACING OUT SIGN MUST BE STATED



Temporary Road Surface Sign – Diagram number 7010.1

Objective: This should be used when a temporary road surface is in use.

When to use: This sign shall only normally be used if the surface is suffering widespread deterioration and in addition the site has already been identified for planned works within the next 3 months. The use of this sign will normally be upon instruction/agreement from Network Planning.

When to remove: When the planned works has been completed.



Reduced Risk Signage and Guarding – Diagram number 610

Objective: To reduce risk on site while awaiting works to be carried out.

When to use: The 610 arrow and cones can be used to reduce risk whilst awaiting resources for gully / manhole replacement works to be rescheduled back to the gang by the Highways Hub, or for awaiting other responsible agencies to take control of the site.

This may also be used for damaged guardrails, fencing, walling pending further planned works.

When to remove: When the defect has been remedied.



Road Closed Sign – Diagram number 7010.1

- Objective: To indicate that the road ahead is closed
- When to use: When all other measures have been explored, and either by instruction of the Police or by confirmation from Network Planning staff the only way to maintain highway user safety is to close the road.
- When to remove: When road is safe to reopen.