

Highway Safety Inspection Manual



CONTENTS

| 1 | INT | RODUCTION | 3 |
|---|-----|--|-----|
| 2 | SC | OPE | 4 |
| 3 | NE | TWORK HIERARCHY | 6 |
| 4 | INS | SPECTION FREQUENCIES | 7 |
| , | 4.1 | Inspection frequencies – tolerances | 8 |
| 5 | DE | FECTS | 9 |
| | 5.1 | Defect response times | 9 |
| | 5.2 | Deficiency and Risk | .10 |
| | 5.3 | Investigatory levels, defect standards and responses | .12 |
| 6 | SA | FETY INSPECTIONS – GENERAL PROCEDURES | .16 |
| 7 | SA | FETY INSPECTIONS - SPECIFIC INSTRUCTIONS | .19 |
| 8 | RO | ILES AND COMPETENCIES | .26 |
| | | | |

1 INTRODUCTION

Safety inspections are an important means of keeping the highway safe for the travelling public. They are also vitally important in court cases for providing evidence that Shropshire Council takes a responsible attitude to its duties as a highway authority. If a highway user suffers a loss that is attributed to a failure to maintain a section of highway, then the highway users may claim damages from the highway authority unless it can prove "that the authority had taken such care as in all the circumstances was reasonably required to secure that the part of the highway to which the action relates was not dangerous for traffic". The number of claims must be controlled as these have an impact on the highway maintenance budgets.

The Council's safety inspection manual has been developed following the guidance within the current Code of Practice "Well-maintained Highway Infrastructure" (UKRLG, 2016) and its legal requirements as set out in the Highways Act (1980). Highway safety inspections are carried out for the following reasons:

- To meet the Council's duty to maintain the highway
- To identify defects that are likely to create a danger or serious inconvenience to highway users or the wider community and to determine the degree and timing of repairs.
- To provide additional intelligence on the condition of the network for wider asset management purposes including optimisation of asset life cycles, prioritisation of funding and scheduling of works programmes.
- To provide an adequate defence against highway claims under Section 58 of the Highways Act 1980.

This inspection manual sets out the Council's requirements for highway safety inspections. Safety Inspections are designed to identify all defects likely to create danger or serious inconvenience to network users or the wider community. The risk due to a hazard is assessed on site and the defect identified as detailed in Section 5 of this document with an appropriate priority response. This safety inspection manual provides guidance on the classification of defects according to risk. It is expected that Inspectors will apply their knowledge and experience to undertake a dynamic risk assessment of the risks as they see it but if in any doubt they should seek advice from their supervisor. Each and every such decision could be critical to the safety of network users and may also potentially be subject to legal scrutiny in the event of an accident occurring at or near the site. In such circumstances complete and accurate records will be essential.

2 SCOPE

Safety inspections will be carried out on all features within the highway on carriageways, footways and cycleways as set out in the Highways Infrastructure Asset Management Plan. Some features will only receive a superficial visual inspection and defects reported to the relevant person or organisation responsible for its maintenance; such features include:

- Highway structures
- Street lighting
- Traffic signals
- Highway trees
- Statutory undertaker's equipment in the highway
- Features maintained by other authorities including Highways England, Network Rail and town and parish councils

These following deficiencies are to be looked for during safety inspections. It is provided as a check list only, is not exhaustive and should be adapted to suit local circumstances.

- Debris, spillage or contamination on running surface or hard shoulder.
- Displaced road studs lying on running surface.
- Overhead wires damaged or unstable.
- Damaged and exposed electrical wiring.
- Embankments and cuttings apparently unstable.
- Trees with loose branches or apparently unstable.
- Signs, signals or lighting damaged, defective, missing or unstable.
- Road markings and studs missing, misleading or badly worn.
- Signs, signals or lighting dirty or obscured.
- Sight-lines obscured by trees, unauthorised signs and other obstructions.

- Safety fencing, parapet fencing, handrail, and other barriers missing or defective.
- Abrupt level differences in the running surface.
- Potholes, cracks or gaps in the running surface.
- Crowning, depression and rutting in the running surface.
- Edge deterioration of the running surface.
- Kerbing, edging or channel defects.
- Rocking or otherwise unstable footpath or cycleway surfaces.
- Apparently slippery running surface.
- Ironwork (gully lids, manholes etc.) broken or missing.
- Gullies, drains or grips blocked or defective.
- Standing water, water discharging onto or overflowing across the running surface.
- Fords- inspected at same frequency as road category, check that depth gauge is present and record onto inspection record.

The term running surface applies to metalled parts of the carriageway, footway or cycle route.

This manual does not cover inspections for winter maintenance. These are treated as a special form of safety inspection and specific codes of practice adhered to.

Where the highway crosses a railway, the Council is not responsible for safety inspections between the STOP markings, any potential safety defect observed during safety or inspections must be immediately reported to Network Rail or the private rail operator. In addition, warning lights, barriers and signs associated with the railway are also the responsibility of Network Rail or the private rail operator.

Some observed safety defects may not be the responsibility of the Council such as utility trench reinstatements and iron works, as well as hazards caused by third parties such as obstructions in the highway or dangerous scaffolding. The Council must ensure that all relevant information is notified directly to the third party concerned but it retains its obligations in respect of maintaining the highway. This means that when such hazards are deemed actionable, the site should be made safe in accordance with the principles of this manual. Any costs incurred may be re-charged to the third party.

3 NETWORK HIERARCHY

A network hierarchy has been defined. A full description of each hierarchy is provided in the Highways Infrastructure Asset Management Plan (HIAMP). The hierarchies for carriageway, footway and cycleways as published in the Code of Practice have been used as a basis for the hierarchies in Shropshire. The basic hierarchy has been enhanced to deal with specific local risks; this enhancement follows similar approaches adopted by other highway authorities and ensures that the core hierarchy is consistent with that used by other authorities.

The assignment of the hierarchy to the network sections has been done using the descriptions in the HIAMP and supplemented with:

- Information on the levels of use
- The expectation of service level by users considering the hierarchy of local links
- Local intelligence on the function of the highway
- Historical classification and an appreciation of risk
- Stakeholder feedback

Where a section could be placed in multiple hierarchies, a judgement on the hierarchy that best reflects the function of that section has been made.

4 INSPECTION FREQUENCIES

Table 1 sets out the standard inspection frequency for each hierarchy; a description of each hierarchy is set out in the HIAMP. These frequencies have been determined from an analysis of recent claims and use of the highway.

| Category | | Hierarchy | Inspected | | |
|----------------|----|--------------------------------------|------------------------|--|--|
| | 2 | Strategic Route | 1 Month | | |
| | 3a | Main Distributor | 1 Month | | |
| | 3b | Secondary Distributor | 1 Month | | |
| way | 4a | Link Road | 3 Months | | |
| arriage | 4b | Local Access Road (Urban) (Rural) | 6 Months 1 Year | | |
| O | 4c | Layby | 1 Year | | |
| | 4d | Minor Lane | 1 Year | | |
| | 5a | Track | As required | | |
| | 5b | Disused Track | As required | | |
| | F1 | Primary Walking Route | 1 Month | | |
| ys | F2 | Secondary Walking Route | 3 Months | | |
| otwa | F3 | Link Footway | 6 Months | | |
| Ъ | F4 | Local Access Footway | 1 Year | | |
| | F5 | Minor Footway | As required | | |
| a S | Y1 | Cycle Lane | As for the carriageway | | |
| Cycle toute | Y2 | Cycle Path | 6 Months | | |
| | Y3 | Cycle Trail | As required | | |

Table 1. Inspection Frequencies

The standard inspection frequency can be increased or reduced based on the risk present. The Local Highways Manager shall maintain a log of deviations from the standard frequency and where required shall regularly review these changes at least annually.

In addition to the schedule of safety inspections, additional inspections of specific defects can be carried out in response to reports of defects from stakeholders or other incidents.

4.1 Inspection frequencies – tolerances

The inspection due date is set by the previous date of inspection and the inspection frequency. The inspection regime acknowledges the need to maintain a regular inspection interval whilst acknowledging the normal operational challenges in maintaining that interval such as weekends, bank holidays, poor weather and normal variations in the time required to undertake inspections. An operational contingency, which is linked to the frequency of inspection and therefore risk, has been defined to cover these normal events and is given in Table 2.

The inspection must be completed by the earlier of the following two conditions:

- The end of the calendar month in which the inspection is due.
- The inspection due date plus the operational contingency.

The effect of the above conditions is illustrated in the following examples:

- If an inspection due date is 10 May 2018 and the operational contingency is 7 days, the inspection must be completed by 18 May 2018.
- If an inspection due date is 10 May 2018 and the operational contingency is 28 days, the inspection must be completed by 31 May 2018.

Inspection intervals can be extended further in exceptional circumstances such as severe weather events on the network. In these circumstances, the inspection must be undertaken as soon as is reasonably practicable following the event and a record maintained by the supervisor of the circumstances which prevented the completion of the inspection within the normal timescales.

| Table | 2. | Operational | contingency |
|-------|----|-------------|-------------|
|-------|----|-------------|-------------|

| Inspection frequency | Operational contingency |
|----------------------|-------------------------|
| 1 Month | 7 days |
| 3 Months | 7 days |
| 6 Months | 28 days |
| 12 Months | 28 days |

5 DEFECTS

5.1 Defect response times

Clearly some defects need to be treated more urgently than others. In order to record how quickly action needs to be taken after an inspection, a category is applied to each individual defect as set out in Table 3.

| | | | • |
|----------|-----------|---------|--------|
| I able 3 | 3. V)eteo | st cate | dories |
| | | , outo | 3066 |

| Defect Category | Description | Response |
|-----------------|------------------------------|---------------------------------|
| 1H | Immediate Response | Make safe/repair within 1 day |
| 1 | Urgent Response | |
| 2H | Planned Response (High Risk) | Make safe/repair within 7 days |
| 2 | Rlanned Response | Make safe/repair within 28 days |
| 2L | Planned Response (Low Risk) | Risk-based response |

The response time for each category commences at the end of the day on which the defect is identified. For example, 'within 1 day' means a defect observed on Tuesday should be made safe or repaired by the end of the day on Wednesday.

The standard planned response to a safety defect is 28 days. This period can be adjusted based on the risk assessed at the time of observation. A key determinant of the risk will be the hierarchy of the carriageway, footway or cycle route but other factors should be taken into account. Section 5.2 provides more guidance on the assessment of risk.

There will be certain defects for which a planned response is not appropriate; these are classed as Category 1 defects. Category 1 defects should be made safe or repaired within 1 day. Category 1 defects include a further sub-category 1H or Immediate Response where failure to act would mean that the first person to pass by would be likely to

come to harm. Examples of such defects could be fallen trees, major bank slips, or certain potholes more than 150mm deep. Where a category 1H defect is observed, the defect must not be left unattended until such time that it is either made safe or repaired.

The risk-based response for Category 2L defects will be determined by the Inspector in consultation with stakeholders based on the observed condition and the risk of further deterioration until the next scheduled inspection. The response may be to include the repair in the next works programme, schedule a more detailed investigation, monitor by more frequent inspections or simply to review at the next inspection.

5.2 Deficiency and risk

Under a risk-based approach, the appropriate response to defects will be determined by considering the risk presented by:

- The depth, surface area or other degree of deficiency of the defect or obstruction.
- The volume, characteristics and speed of traffic.
- The location of the defect relative to highway features such as junctions and bends.
- The location of the defect relative to the positioning of users, especially vulnerable users, such as in traffic lanes or wheel tracks, in cycle lanes or crossing points.
- The nature of interaction with other defects.
- Likely weather conditions, especially potential for freezing of surface water.
- Likely impact on highway users who come into contact with the defect.
- Impacts on vehicles and property that come into contact with the defect.

These can be assessed in accordance with the Council's Opportunity Risk Management Strategy using the matrix in Table 4; guidance on the risk scores is provided in Table 5. After the assessment of risk, the risk will be treated according to an appropriate response. In accordance with the Council's Opportunity Risk Management Strategy, any risks assessed as being below the 'Risk Acceptance Level' should managed to ensure that resources are not wasted and as such the defect should be considered for maintenance in accordance with the Council's asset management strategy.

 Table 4. Risk Assessment Matrix



Table 5. Guidance on assessment criteria

| | Score |
|--|--------|
| Impact | |
| Fatal injury | 5 |
| Serious injury e.g. casualty will likely detained in hospital as an "in-patient" | |
| Complete loss of control, Vehicle or property is irreparable | 3 to 4 |
| Significant vehicle or property damage - e.g. vehicle is damage to suspension/bodywork Slight injury e.g. casualty will likely not be detained in hospital as an "in-patient" | 2 to 3 |
| Minor vehicle or property damage - e.g. cosmetic damage or damage to tyres Minor injuries - e.g. cuts or bruises | 1 |
| Likelihood | |
| In normally trafficked path, can't avoid without peril | 4 to 5 |
| In normally trafficked path but can avoid without peril | 3 to 4 |
| Just outside of out of normally trafficked path | 2 to 3 |
| Well outside of out of normally trafficked path | 1 |

5.3 Investigatory levels, defect standards and responses

In order to provide clear guidance, minimum investigatory levels have been developed using a risk and evidence-based approach, benchmarking with other Highway Authorities and the Code of Practice. The Table 6 and 7 provide the investigatory criteria and guidance on responses.

Certain heritage areas are often surfaced with materials that, by their nature, have uneven surface qualities. The highway users may be reasonable expected to acknowledge these qualities and take appropriate care when travelling through these areas. A response determined by the consideration of specific, local risk factors would appropriate in these circumstances.

Table 6: Investigatory criteria and guidance on response times for carriageway defects

| Carriageways | 2, 3a, 3b | 4a,4b,4c | 4d,5a,5b | Response | Notes | | | |
|-----------------------------------|---------------------|-----------------------|----------|----------|-------|--|--|--|
| | >100mm | | | 1 | | | | |
| Abrupt level difference in | >50mm | >100mm | | 2H | | | | |
| the surface | >25mm | >50mm | | 2 | | | | |
| | | >25mm | >50mm | 2L | | | | |
| | >100mm | | | 1 | | | | |
| Potholes | >50mm | >100mm | | 2H | | | | |
| (>150mm diameter) | >25mm | >50mm | | 2 | | | | |
| | | >25mm | >50mm | 2L | | | | |
| | >100mm | | | 1 | | | | |
| Frotting of surface joints | >50mm | >100mm | | 2H | | | | |
| Fretting of surface joints | >25mm | >50mm | | 2 | | | | |
| | | >25mm | >50mm | 2L | | | | |
| | >100mm | | | 1 | | | | |
| Edge deterioration | >50mm | >100mm | | 2H | | | | |
| | >25mm | >50mm | | 2 | | | | |
| | | >25mm | >50mm | 2L | | | | |
| | Affects > ¼ of road | | | 1 | | | | |
| Flooding | | Affects > 1/2 of road | | 2H | | | | |
| | | >75mm | | 2H | | | | |
| Displaced filter material | | | | 1 | | | | |
| Missing ironwork | | • | | 1 | | | | |
| Defective ironwork | | • | | 2L | | | | |
| Displaced filter material | | | | | | | | |
| from drainage | | | | 1 | | | | |
| Defective vehicle barrier | | | | 1 | | | | |
| | | | | | | | | |
| Shropshire Council T& IDENTIAL 13 | | | | | | | | |

| Carriageways | 2, 3a, 3b | 4a,4b,4c | 4d,5a,5b | Response | Notes |
|---|-------------------------|----------------------|----------|----------|--------------------------------|
| Damaged/Deformed Bridge or Structural Element | | • | | 2L | |
| Unstable Masonry/Brickwork/Rot | | • | | 1 | Report to Structure's Team |
| Visibility restricted at bridge | | • | | 2L | |
| Inadequate visibility | • | • | | 2H 2L | |
| Severe foundation failure or subsidence | | • | | 1 | Refer to notes |
| Geotechnical material on road | | • | | 1H | Refer to notes |
| Injurious weeds | | | | 2H | |
| Dangerous obstructions in the highway | | | | 1 | |
| Other obstructions in the highway | | | | 2L | |
| Debris on road surface | • | | | 1 | |
| Including spills | | | | 2H | |
| Defective important | Insufficient legibility | | | 1 | |
| signs | | Insufficient legibil | ty | 2H | |
| | Dangerous | | | 1 | Refer to notes |
| Defective signs and | Non-dangerous | | | 2L | |
| bollards | | Dangerous | | 2H | Refer to notes |
| | | Non-dangerous | | 2L | |
| Traffic signals defects | | • | | 1 | Report to Traffic Signals Team |
| Dangerous street lighting columns | | • | | 1H | |
| Exposed wiring | | • | | 1H | Report to Street Lighting Team |
| Non-dangerous lighting defects | | • | | 2L | |
| Shropshire Council DRA | ENTIAL | | 14 | | |

| Carriageways | 2, 3a, 3b | 4a,4b,4c | 4d,5a,5b | Response | Notes |
|----------------------|------------|-----------------------|----------|----------|-------|
| Defective road studs | Missing, L | oose or badly damaged | | 1 | |

Table 7. Investigatory criteria and guidance on response times for footway defects

| Footways & Cycleways | F1 | F2, F3, F4 | F5 | Y1, Y2 | Y3 | Response | Notes |
|----------------------------|-------|------------|----------------------|---------|----|----------|-------|
| | >20mm | | | | | 1 | |
| Abrupt level difference in | | >20mm | | >20mm | | 2H | |
| the surface | | | >20mm | | | 2L | |
| | >20mm | | | | | 1 | |
| Potholes | | >20mm | | < >20mm | | 2H | |
| | | | >20mm | | | 2L | |
| | >20mm | | | | | 1 | |
| Fretting of surface joints | | >20mm | | >20mm | | 2H | |
| | | | >20mm | | | 2L | |
| | >20mm | | | | | 1 | |
| Rocking paving units | | >20mm | | >20mm | | 2H | |
| | | | >20mm | | | 2L | |
| Vegetation | • | | | • | | 2 | |
| vegetation | | | | | • | 2L | |
| Defective pedestrian | • | | | • | | 1 | |
| barrier | | | \sim \rightarrow | | • | 2H | |
| | | | | | | | |

| Applies | |
|-------------------------------------|----|
| Does not apply | |
| | |
| Shropshire Council DRA CONFIDENTIAL | 15 |
| | |

6 SAFETY INSPECTIONS – GENERAL PROCEDURES

Most safety inspections on the highway network will be undertaken from a slow-moving vehicle travelling in one direction. On dual carriageways and wide single carriageways, inspections will be carried out in both directions in order that all features and possible defects on the network are observed from a road users' perspective. On single carriageway, strategic routes, main distributor and secondary distributor roads, the inspections will take place from one direction in month one, and from the other direction in month two. This presumes that nearly all actionable defects will be observable from a slow-moving vehicle. In practice this is not always the case, and in such circumstances the inspection should be completed on foot.

Driven inspections will be undertaken by an inspector with a driver.

Inspections should only be undertaken when there is good visibility.

Where the surface of the highway is obscured, for example by parked cars, it is reasonable to expect that this part of the surface is not inspected until a further attempt at the next schedule inspection.

The inspection schedules will be maintained by the Supervisor.

Category 1 defects (including those on highway trees) must be notified immediately by telephone to the Contractor or, where features have only received a superficial visual inspection as set out in Section 2, to the appropriate organisation or section responsible for the maintenance of the feature.

Inspections are to be recorded using a Data Capture Device (DCD) linked to the Integrated Highway Management System (IHMS). In the event of failure of either the DCD or IHMS, a alternative process of capturing and issuing work will be employed and the IHMS will be updated as soon as possible.

Where no defects exist, a clear record that the section has been inspected must be created in the Integrated Highway Management System (IHMS) using the Data Capture Device (DCD).

Sufficiently clear images should be captured of the defect when observed and when repaired; for multiple defects in one location these images should capture the wider view of

the defects. Where possible, these images should include a locally identifiable feature. It may be helpful to include a standard object to help scale the dimensions of the defect such as a ruler, pen or coin. Images must not be captured where to do so would place the Inspector at risk.

The general process for dealing with defects is as follows:

- 1. Assess the risk and categorise the defect
- 2. Take action to make safe in accordance with the category of the defect.
- 3. Arrange for additional work to permanently repair the defect if not permanently repaired in Step 2 and if required by the asset life cycle plan.

Risk should be regularly monitored by the Local Highway Manager through analysis of insurance claims, recent safety inspections and feedback from the Inspector or Local Highways Technician. Any particular sections where there is a pattern of risk which is significantly different from the expected pattern for the hierarchy and that which is known locally may be assigned a different frequency of inspection than shown in Table 1.

Works orders to rectify safety defects must be appropriately referenced to the highway network with coordinates and linked to inspection records. A sufficiently detailed audit trail recording the process from identifying defects to the completion of the works should be created. For Category 1 defects, the time that the defect was observed must be recorded together with the time that the defect was made safe. For Category 2 defects, as a minimum, the date that the defect was observed must be recorded together with the defect was made safe; where no time is recorded it will be assumed that time was 23:59 on the day of inspection.

The standards and specification of the defect repair will be as detailed in the Council highway maintenance contract document in use at the time the defect is found.

Where a defect has been notified to a third party, the information communicated about the defect should be retained and where required, a further inspection arranged to confirm that timely remedial action has been taken in accordance with the response that would be set out in this policy.



Table 7. Permissible methods of inspection

Notes:

1 – Only permitted where the inspected surface can be clearly viewed and is not obscured by hedges, parked cars etc.

2 – On rural footways, safety inspections should be done from a vehicle with only the occasional need to proceed on foot. On urban footways, safety inspection from a vehicle may not be possible and may need to be conducted on foot.

7 SAFETY INSPECTIONS – SPECIFIC INSTRUCTIONS

| CARRIA | CARRIAGEWAYS | |
|--------|---|--|
| 1 | Edge deterioration on rural unkerbed roads within 250mm of the original road | |
| | edge and 50mm deep or less are not considered to be a safety defect and | |
| | safety related action is not required. | |
| 2 | Road sections where there is clear evidence of extensive rutting, poor cross- | |
| | sectional profile, poor longitudinal profile (unevenness), or smooth/polished | |
| | areas, must be reported to the Local Highway Manager. | |
| 3 | Some areas of carriageway are designed for use by pedestrians. In these | |
| | cases, the investigatory criteria for footways will also apply. Such areas include: | |
| | Formal pedestrian crossings | |
| | Carriageways that act as pedestrianised areas. These are typically | |
| | closed to vehicles are certain times of the day. | |
| 4 | For carriageways that form part of the signed cycle route, the investigatory | |
| | criteria for cycleways will only apply in such areas where a cycle lane exists. | |
| FOOTW | AYS AND CYCLEWAYS | |
| 5 | Non highway trenches with potholes greater than 20mm deep or abrupt | |
| | differences in level greater than 20mm, when measured vertically, shall be | |
| | recorded and notified to the appropriate service company, responsible body, or | |
| | private owner. | |
| | If the defect is such that a Category 1 response would be required, immediate | |
| | arrangements should be made to make safe. | |
| 6 | Flagged and modular footways have been assessed as presenting a higher risk | |
| | than other types of footway. Such risks are attributed to disruption of the surface | |
| | from underneath (e.g. tree roots) or from above (e.g. vehicle overrun). Where | |
| | there is a significant risk of disruption to the surface, the footway should be | |
| | inspected at a frequency in accordance with the next more frequent level above | |
| | as set out in Table 1 to reduce risk; for example a Local Access Footway with a | |
| | significant risk of disruption of the surface should be inspected every 6 months. | |

| | Recent inspection records and claims history can be used to determine the risk |
|-------|---|
| | of disruption to the surface. |
| 7 | It is not reasonably required to physically check every paving unit for rocking |
| | movement. However, the inspector must check obvious moving units which may |
| | be displaced or show other signs of disturbance. |
| IRONW | ORK |
| 8 | For defects in non-highway service furniture, these should be recorded and |
| | notified to the appropriate service company (via the Street Works Team), the |
| | responsible body, or private owner. For fire hydrants refer to the Fire & Rescue |
| | Service. |
| 9 | Defects on or immediately around fire hydrants shall be referred to the Fire & |
| | Rescue Service. |
| 10 | Ironwork in the highway will only be subject to a visual inspection to ensure that |
| | it is seated correctly and the cover is intact. |
| 11 | All ironwork with a difference in level with the road should be dealt with in |
| | accordance with type of asset it is positioned within i.e. carriageway, footway or |
| | cycle route. |
| KERBS | |
| 10 | |
| 12 | where there is a tootway immediately adjacent and significant crossing |
| | movements would be expected, the response times shall be aligned with the |
| | guidance for Footways. |
| 13 | Where there is no footway immediately adjacent and kerbs are damaged or |
| | missing, a risk assessment will be undertaken by the Inspector to determine the |
| | scale of works and response time required |
| STREE | TLIGHTING |
| 14 | |
| • • | Damaged, leaning or collapsed columns, and exposed wiring, missing or open |
| | Damaged, leaning or collapsed columns, and exposed wiring, missing or open doors, or hanging lanterns that are assessed to expose highway users to high |

| 15 | Non-safety defects such as all day burners, missing lantern bowls or lantern |
|--|--|
| | obscured by vegetation should be referred to the Street Lighting Team. |
| TRAFFI | C SIGNALS |
| 16 | All defects must be formally reported immediately by telephone to the Traffic |
| | Signals Team who will then arrange for the necessary repairs. |
| 17 | Defects are to be considered as Category 1 defects and made safe by erecting |
| | suitable temporary warning signs as soon as practicable. |
| | |
| BRIDGE | S AND RETAINING WALLS |
| 18 | All unstable masonry or brickwork observed in any structures adjacent to the |
| | highway must be reported immediately by telephone to the Structures Team. |
| | |
| HIGHWAY DRAINAGE: FLOODING AND BLOCKAGES | |
| 19 | Blocked drainage systems must be investigated within 7 days if a significant |
| | seepage of water across the carriageway occurs. On the defined network of |
| | roads for winter maintenance, such seepage can result in the loss of any salt |
| | applied and rapidly led to a significant build up of ice. Seepage also significantly |
| | increases the risk of aquaplaning and wet skid accidents. |
| 20 | Flooding defects on Strategic Routes, Main Distributor and Secondary |
| | Distributor road that are caused by blockages and silt accumulation must be |
| | treated as Category 1 and made safe by the provision of warning signs. |
| | Arrangements should be made to clear the blockage or siltation within 7 days. |
| | Flooding defects on other roads that are caused by blockages and silt |
| | accumulation should be treated following a risk assessment by a Local |
| | Highways Technician. Where required, arrangements should be made to clear |
| | the blockage and siltation within 28 days. |
| 21 | Advice must be sought from the Drainage Team on all privately-owned ditches |
| | used to carry the highway water, which become blocked or silted up. |

| VERGES, TREES AND HEDGES | | |
|--------------------------|---|--|
| 22 | Injurious weeds growing on highways which could cause danger to humans, | |
| | such as giant hogweed, should be treated by suitably qualified personnel. | |
| 23 | Highway safety inspections should include highway trees, including those | |
| | outside, but within falling distance of the highway. Inspectors should take note of | |
| | any encroachment or obstruction to visibility caused by highways trees. Any | |
| | obvious damage, ill health or trip hazards should also be noted. | |
| 24 | If there is an immediate risk of harm network users due to tree causing an | |
| | obstruction on the highway, it shall be treated as a category 1 detect and the | |
| | Arboricultural Officer shall be consulted for advice. In other instances, work | |
| | required on trees adjacent to the highway should be referred to the landowner | |
| | and action taken to remedy the situation agreed. | |
| 25 | For defects on trees adjacent to the highway, these should be recorded and | |
| | notified to the land owner. | |
| ROAD F | RESTRAINTS | |
| 26 | On all roads the site should be made safe within 24 hours of damage being | |
| | notified or observed, by the provision of suitable warning signs. The provision of | |
| | temporary barriers or lane closures should be considered where a Local | |
| | Highways Technician has carried out a risk assessment exercise which | |
| | indicated a significant risk to road users. | |
| EMBAN | KMENTS AND CUTTINGS | |
| 27 | The Local Highways Technicians shall carry out an on-site risk assessment to | |
| | determine an appropriate response to failures. | |
| HIGHWAY OBSTRUCTIONS | | |
| 28 | Accident debris, slurry, mud deposits, oil spillages and the like on Strategic, | |
| | Main and Secondary Distributor Roads that are considered by a Local Highways | |
| | Technician to pose a significant risk to network users, shall be treated as a | |
| | Category 1 defect and must be made safe by the provision of warning signs | |
| | and/or cleansing. | |

| | On all other roads, The Local Highways Technicians shall carry out an on-site |
|-------------------------------|---|
| | risk assessment to determine an appropriate response to these defects. |
| 29 | For defects where the cause of the risk is not the responsibility of highway |
| | authority, these should be recorded and notified to the appropriate service |
| | company (via the Street Works Team), the responsible body, or private owner |
| | for action within 7 days. |
| 30 | All fuel and chemical spillages should be dealt with following consultation with |
| | the emergency services. In the event of advice being delayed from the |
| | emergency services, the site must be immediately made safe by the erection of |
| | appropriate signs, and in extreme cases, by emergency road closures. |
| SIGNS: FACE/STRUCTURE/FIXINGS | |
| 31 | The response requirements for strategic routes, main distributor and secondary |
| | distributor roads extend to signs on adjoining roads at the approaches to these |
| | routes. |
| 32 | Defects affecting the legibility of important warning signs and regulatory signs or |
| | other defect to signs and bollards presenting a high risk of harm to highway |
| | users should be managed as follows: |
| | On strategic routes, main distributor and secondary distributor roads defects |
| | should be treated as Category 1 and permanently repaired within 7 days. |
| | On other roads, defects should be treated as Category 2H and permanently |
| | repaired within 28 days. |
| 33 | Defects on other road signs including posts and fittings that are missing, |
| | damaged, obscured or pointing the wrong way, should be treated as Category |
| | 2L and, where possible, repaired within 3 months. |
| | The Traffic Team may be consulted to ensure that the sign is not redundant. |
| 34 | Lamp failures and lamps illuminated during the day should be reported to the |
| | • |

| 35 | Illuminated stop signs with lamp failure or any exposed wiring should be | | |
|------|---|--|--|
| | reported to the Street Lighting Team immediately by telephone. | | |
| ROAD | ROAD STUDS | | |
| 36 | Missing, loose or badly damaged casings for road studs are treated as Category | | |
| | 1 and replaced in the next available programme. | | |
| 37 | Low or high catseye casings, damaged catseye rubbers, damaged or missing | | |
| | stick-on road studs are to be treated as Category 2L. | | |
| ROAD | MARKINGS | | |
| 38 | When more than 50% of road markings are missing or worn away, markings | | |
| | should be replaced within three months on Strategic Routes, Main Distributor | | |
| | and Secondary Distributor roads and during the next available programme for all | | |
| | other roads. The Local Highways Technician may consider erecting warning | | |
| | signs following a risk assessment of the site. | | |
| | Longitudinal road markings should normally be assessed over a 300m length. In | | |
| | the case of double white line systems or approaches to junctions, a 50m section | | |
| | should be used instead. | | |
| | When 50% of Stop and Give Way markings are missing or worn away, markings | | |
| | should be replaced within 3 months on all roads. | | |
| 39 | When more than 50% of road markings are obscured, or are visible by day, but | | |
| | not reflective at night, markings should be replaced within three months on | | |
| | Strategic Routes, Main Distributor and Secondary Distributor roads and during | | |
| | the next available programme for all other roads. The Local Highways | | |
| | Technician may consider erecting warning signs following a risk assessment of | | |
| | the site. | | |
| | Longitudinal road markings should normally be assessed over a length of 300m. | | |
| | In the case of double white line systems, or approaches to junctions, a 50m | | |
| | section should be used instead. | | |
| | | | |

8 ROLES AND COMPETENCIES

This document references a number of roles which are required to operate the safety inspection system. In a dynamic organisation, roles and titles can change; therefore the following generic descriptions of roles are defined which will be identifiable within the current organisational structure. An individual may undertake more than one of these roles.

| Role | Description |
|--------------------------|---|
| Inspector | A person who has either been trained through a scheme |
| | that has been accredited by the Highway Inspectors |
| | Board. |
| Supervisor | A person who directly manages the task of safety |
| | inspections and is responsible for ensuring that the |
| | inspections are completed according to the required |
| / | schedule and to the requirements of this manual. |
| Local Highway Manager | A person who is responsible for highways maintenance |
| | on a defined part of the network. |
| Local Highway Technician | A person who is able to assess risk and priorities on |
| | behalf of the Council using technical knowledge of |
| | highways maintenance; usually reports to the Local |
| | Highways Manager. |
| Traffic Team | Persons in this team have responsibility for the operation |
| | and maintenance of the Council's street lighting asset. |
| Street Lighting Team | Persons in this team have responsibility for the operation |
| | and maintenance of the Council's street lighting assets. |
| Traffic Signals Team | Persons in this team have responsibility for the operation |
| | and maintenance of the Council's traffic signal assets. |
| Structures Team | Persons in this team have responsibility for the operation |
| | and maintenance of the Council's bridges and retaining |
| | walls. |
| Drainage Team | Persons in this team are able to assess risk and priorities |
| | on behalf of the Council using technical knowledge of |

| | highway drainage. |
|--------------------------|---|
| Street Works Team | Persons in this team act liaise directly with statutory |
| | undertakers on behalf of the Council. |
| Natural Environment Team | Persons in this team are able to assess risk and priorities |
| | on behalf of the Council using technical knowledge of |
| | environmental issues. |
| Bridge Engineer | Person who is responsible for assessing risk and |
| | priorities on highway structures on behalf of the Council. |
| Arboricultural Officer | Person who is able to assess risk and priorities on behalf |
| | of the Council using technical knowledge of arboriculture. |

The Inspector, Supervisor and Local Highways Technician should be registered on the National Register of Highway Inspectors. For new Inspectors, they will be closely mentored by the Supervisor and a personal development plan will be in place to ensure that they are registered within 12 months of starting the role.