



Doncaster
Council

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DONCASTER METROPOLITAN BOROUGH COUNCIL

HIGHWAYS SAFETY INSPECTIONS POLICY

Economy and Environment
Highway Asset Maintenance

V.01.04 (Jan 2022)

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Preface

This policy document only applies to adopted highways and will be reviewed and updated if required within a two yearly cycle reflective of Well-Managed Highway Infrastructure (WMHI) revisions, legislative changes and advice, safe working practice reviews and changes to the Council's position on highway inspections.

Note:- This Policy statement should be read in conjunction with the operational highway inspection process and guidance contained within the **Highway Safety Inspection Manual (HSIM)**.

| Version | Date | Purpose | Name | Designation |
|----------------|-------------|------------------------------|-------------|---|
| 01.01 | Sept 2016 | New Policy | D. Snell | Senior Engineer Highways Routine Maintenance |
| 01.01 | 29/03/17 | Approval of new policy | J. Blackham | Portfolio Holder for Regeneration and Environment |
| 01.02 | Sept 2018 | 2 year policy review | D. Snell | Senior Engineer Highways Routine Maintenance |
| 01.02 | 11/03/19 | Approval of reviewed policy | J. Blackham | Portfolio Holder for Regeneration and Environment |
| 01.03 | Oct 2020 | Review deferred due to COVID | D.Snell | Senior Engineer Highways Routine Maintenance |
| 01.04 | Jan 2022 | 2 year policy review | A.Allen | Senior Engineer Highways Routine Maintenance |
| 01.04 | 21/04/22 | Approval of reviewed policy | J.Blackham | Portfolio Holder for Highway Infrastructure and Enforcement |

This Policy has been developed with the guidance of the CoPHMM and WMHI (AcoP) a review shall take place within a 2 yearly cycle.

Introduction

Doncaster Council has a statutory duty under Section 41 (1) of the Highways Act 1980 to maintain the highway.

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

This duty of maintenance is further expanded upon in the Well-Managed Highway Infrastructure - A Code of Practice (WMHI) with particular reference to Section A.5.4.1 of the CoP–Inspections and Surveys which states...

Establishment of an effective regime of inspection, survey and recording is the most crucial component of highway infrastructure maintenance. The characteristics of the regime including types and frequency of inspection, items to be recorded and nature of response should be defined following an assessment of the relative risks associated with potential circumstances of location, agreed level of service and condition. These should be set in the context of the authorities’ overall asset management strategy.

“Authorities are not statutorily obliged to undertake inspections of all highway elements under all of these categories, but are strongly advised to undertake at least safety inspections in accordance with the principles of this Code.” (WMHI)

By adopting the principles of the WMHI Local authorities are able to support a defence under Section 58 of the Highways Act 1980 and equivalent legislation within the Devolved Administrations. This requires that a court shall have regard to *“whether the highway authority knew or could reasonably be expected to know that the condition of the part of the highway to which the action related was likely to cause danger to users of the highway”*.

Whilst the WMHI and CoPHMM provides guidance they recognise the need for reasonable local discretion and diversity reflective of regional differences and allows adaptations based on a consideration of local circumstances. The principle of this Code is that highway authorities will adopt a risk-based approach in accordance with local needs, priorities and affordability. This is consistent with [ISO 55000](#), which states that “asset management translates the organisation’s objectives into asset-related decisions, plans and activities, using a risk based approach.” The Code will not therefore outline any minimum or default standards, but includes guidance and advice to support development of local levels of service.

It is against the above guidance and legislative backdrop that Doncaster Councils’ Highway Safety Inspection Policy (HSIP) is hereby determined and applied by working with the guidance of the WMHI (ACoP) and CoPHMM, adopting local variations reflective of legislative and operational constraints and requirements.

Doncaster Councils’ Highway Inspections are visual inspections undertaken in accordance with the appropriate risk assessments. They are designed to

provide complete, accurate and timely information, as far as is reasonably practicable, on the safety maintenance needs of the highway network and its ancillary assets based on site observations and measurements. These are applied through a process of risk evaluation reflective of the characteristics of the defect, the local environment and network usage (Risk Based Approach – RBA).

This Policy supports Doncaster Councils' Highway Asset Management Strategy.

Regard is given in this Policy to the recommendations within the Highways Maintenance Efficiency Programme (HMEP).

Safety Inspections

These form a key aspect for managing highways liabilities and risks. They are core to the immediate and continued safety of the highways user and are designed to capture and address defects that are likely to create a danger or cause serious inconvenience.

They may be undertaken from a slow moving vehicle or on foot. Inspections will be carried out to a defined programme reflective of hierarchy and frequency.

Assets for Inspection

Highways assets take on many forms inclusive of the adopted carriageway, footway/cycleway, verge areas and a wide array of other assets that these features accommodate. These ancillary assets include street furniture, bollards, fencing, street lighting, drainage, traffic and transportation assets, utility apparatus, etc.

Any physical entity that is located within or adjacent to the adopted highway, whether it is under the ownership and responsibility of the Council or owned and maintained by others, offers the potential for damage, deterioration or failure over the course of time.

Doncaster Council is a responsible and accountable Highway Authority. All such assets are of interest to us during highway safety inspections in order to maintain the safety, serviceability and sustainability of the highway network.

Service Users

Doncaster Councils' maintenance of the highway network is reflective of several factors that promote its safety and continued serviceability.

Users have different mobility and transportation needs with varying aspirations and expectations so the outcome of the highway safety inspection and its associated maintenance actions should reflect the needs of these disparate user groups, for example,

- Motorist

- Pedestrian
- Cyclist
- Mobility user, physically and visually impaired
- Elderly citizen

Survey Network

Doncaster's highway network for inspection comprises circa 1750km roads, 1800km footways and 55km cycleways. Valued at around £2bn, it is the Councils' most valuable public asset.

Network Hierarchy

Doncaster Councils highway network is defined by 'hierarchy' based on guidance from the WMHI. Highway safety inspections are programmed reflective of the hierarchies shown below:-

Motorways and Trunk Roads:-

Doncaster Council has no ownership or maintenance responsibility for Motorways or Trunk Roads within the Borough. These Hierarchy 1 and 2 roads, respectively, are the responsibility of National Highways.

Classified Roads:-

The A, B and C class roads are predominately found within road hierarchies 2b, 3a and 3b and cover both urban and rural lengths of network. These classified roads carry both traffic travelling between urban centres and that passing through the borough.

Unclassified Roads:-

The urban and rural unclassified roads are predominately assigned road hierarchies 4a, 4b, 5 or 6. The nature and use of these roads are wide scoping and carry a large variety of traffic.

Footways:-

Footways, reflective of their usage and location, may be assigned footway hierarchies 1a, 1, 2, 3 or 4.

Cycle Routes:-

Cycle routes, reflective of their usage and location, may be assigned cycleway hierarchies A, B or C.

Town Centres:-

An area designated as a 'Town Centre' can encompass a variety of hierarchies.

Subways and Footbridges:-

These are assigned hierarchy 13A and 13B respectively

Table 1

| Doncaster MBC Carriageway Hierarchy | | | | |
|--|------------------------------|---|--|---|
| Carriageway Hierarchy | Hierarchy Description | Type of Road General Description | Network Coverage | Network Interpretation |
| 1 | Motorway | Limited access motorway regulations apply | No Motorways are maintained by Doncaster Council | N/A |
| 2 | Strategic Route | Trunk and some Principal 'A' roads between Primary Destinations | No Trunk Roads are maintained by Doncaster Council | N/A |
| 2b | | | Principal Route Network (PRN) and other defined A Roads | Routes for fast moving long distance traffic with little frontage access or pedestrian traffic. Speed limits are usually in excess of 40 mph and there are few junctions. Pedestrian crossings are either segregated or controlled and parked vehicles are generally prohibited. |
| 3a | Main Distributor | Major Urban Network and Inter-Primary Links. Short - medium distance traffic | Remaining A Roads Defined B Roads Defined C Roads Defined Unclassified Link Roads | Routes between Strategic Routes and linking urban centres to the strategic network with limited frontage access. In urban areas speed limits are usually 40 mph or less, parking is restricted at peak times and there are positive measures for pedestrian safety. |

| | | | | |
|----|-----------------------|---|--|--|
| 3b | Secondary Distributor | Classified roads (B and C class) and unclassified urban bus routes carrying local traffic with frontage access and frequent junctions | Remaining B Roads Defined C Roads Defined Unclassified Link Roads | <p>In rural areas these roads link the larger villages and HGV generators to the Strategic and Main Distributor Network.</p> <p>In built up areas these roads are generally link roads with significant bus and HGV usage (typically 75+ per day) and/or carrying local through traffic. They often have 30 mph speed limits and high localised levels of pedestrian activity with some pedestrian crossing facilities including zebra crossings.</p> <p>On-street parking is generally unrestricted except for safety reasons.</p> |
| 4a | Link Road | Roads linking between the Main and Secondary Distributor Network with frontage access and frequent junctions | Defined C Roads Unclassified urban link roads through residential estates and selected rural link roads between villages. | <p>In rural areas these roads link the smaller villages to the distributor roads and they can be of varying width and not always capable of carrying two-way traffic.</p> <p>In urban areas they are link roads in residential areas or industrial roads often with 30 mph speed limits with largely uncontrolled parking and random pedestrian movements. They often carry bus traffic and some HGV's and provide connectivity from the residential 4b estate roads to the main road network.</p> <p>On-street parking is generally unrestricted except for safety reasons.</p> |

| | | | | |
|----|--------------------------|--|---|--|
| 4b | Local Access Roads | | | In rural areas these roads serve small settlements and provide access to individual properties, farms and land. |
| 5 | Rural Unclassified Roads | | Remaining road network comprising of:- | They may be only single lane width and are generally unsuitable to carry frequent HGV traffic. |
| 6 | Service/Back Roads | Roads serving limited numbers of properties carrying only access traffic | Remaining C Roads Residential urban estate roads Rural unclassified roads Service/back roads | In urban areas they are usually residential streets, loop roads, cul-de-sacs or rear access roads and are not primarily intended or designed to frequently carry PSV's or HGV's. |

Table 2

| Doncaster MBC Footway Hierarchy | | | |
|--|------------------------------|---|---|
| Footway Hierarchy | Hierarchy Description | Description | Interpretation |
| 1 (a) | Prestige Walking Route | Very busy areas of towns and cities with high public space and street scene contribution. | None designated within Doncaster Borough. |
| 1 | Primary Walking Route | Busy urban shopping and business areas and main pedestrian routes. | Busy urban shopping and business areas with main pedestrian routes and often restricted vehicular access. |
| 2 | Secondary Walking Route | Medium usage routes through local areas feeding into primary routes, local shopping centre's etc. | Medium usage, shopping outlets 8+ units within 100m radius, footways >500 pedestrian movements per day. |
| 3 | Link Footway | Linking local access footways through urban areas and busy rural footways. | Other routes, routes linking estates to urban shops, churches, cemeteries etc. |
| 4 | Local Access Footway | Footways associated with low usage, short estate roads to the main routes and cul-de-sacs. | All other footways. |
| 13A | Subways | Highway underpass | Non-vehicular underpass |
| 13A | Footbridges | Purpose built structure | Non-vehicular use |

Table 3

| Doncaster MBC Cycle Route Hierarchy | |
|--|---|
| Hierarchy Category | Description |
| A | Cycle lane forming part of the carriageway, commonly 1.5 metre strip adjacent to the nearside kerb. Cycle gaps at road closure point (no entries allowing cycle access). |
| B | Cycle track, a highway route for cyclists not contiguous with the public footway or carriageway. Shared cycle/pedestrian paths, either segregated by a white line or other physical segregation, or un-segregated. |
| C | Cycle trails, leisure routes through open spaces. These are not necessarily the responsibility of the highway authority, but may be maintained by an authority under other powers or duties. This hierarchy is not covered under this policy. |

Inspection Frequency

Doncaster Councils inspection frequency is based on hierarchy. Whilst the WMHI provides guidance on the hierarchy description it does not give any guidance or recommendation on how often but does state:

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

“Assignment of a carriageway to a particular category is a matter for local discretion”,

“Footway hierarchy should be determined by functionality and scale of use”

Cycle routes “are categorised not by use or functionality but by location, which reflects the differing risks associated with shared, partially segregated and fully segregated cycle routes.”

Circumstances outside our control e.g. weather conditions or network availability, may result in highway inspections not being carried out on their due date. Doncaster Council considers the following delays to be reasonable:-

| <u>Target Insp Frequency</u> | <u>Tolerance</u> |
|-------------------------------------|-----------------------------|
| Monthly | + 1 week (5 working days) |
| 3 Monthly | + 2 weeks (10 working days) |
| 6 Monthly | + 3 weeks (15 working days) |
| Annual | + 4 weeks (20 working days) |

The tolerances above refer to Mon-Fri excluding Bank Holidays.

Table 4 provides Doncaster Councils' highway safety inspection frequencies.

Table 4

| Feature | Hierarchy | Description | Frequency |
|---------------------------|------------------|---------------------------|--|
| Roads | 1 | Motorway | No motorways are maintained by DMBC |
| | 2 & 2b | Strategic Route | 1 Month |
| | 3a | Main Distributor | 1 month |
| | 3b | Secondary Distributor | 3 months |
| | 4a | Link Road | 3 months |
| | 4b, 5, 6 | Local Access Roads | 1 year |
| Footways | 1a | Prestige Area | 1 month |
| | 1 | Primary Walking Route | 1 month |
| | 2 | Secondary Walking Route } | As per adjacent road inspection frequency. |
| | 3 | Link Footway } | |
| | 4 | Local Access Footway | 1 year |
| | 13A/13B | Subways/Footbridges | 1 month |
| Defined Town Centre Areas | Various | Defined Town Centre Areas | 1 month |

| | | | |
|-------------|---|-------------------------|---|
| Cycle Route | A | Part of Carriageway | As for adjacent road inspection frequency |
| | B | Remote from Carriageway | 1 Year Not included in this policy |
| | C | Cycle Trails | |

Risk Based Approach (RBA)

Defect Risk Assessment

Any item or asset with a defect level which equals or exceeds the stated defect investigatory level adopted by the authority (as shown in Table 7) is to be assessed for potential risk.

Risk Evaluation

All risks identified through this process have to be evaluated in terms of their significance, which means assessing the likely impact should the risk occur and the probability of it actually happening.

The risks are based upon the highest identified risk attributable to the type of defect, position and assessed type of usage, using the inspectors training, skill and local knowledge.

Risk Impact

The impact of a risk occurring should be assessed on a scale of 1 to 4 as follows:

- little or *negligible* impact;
- minor or *low* impact;
- *noticeable* impact;
- major, *high* or serious impact.

The impact is quantified by assessing the extent of damage likely to be caused should the risk become an incident. It is likely to increase with the speed of highway users and the type of asset.

Risk Probability

The probability of a risk occurring should also be assessed on a scale of 1 to 4 as follows:

- *very low* probability;
- *low* probability;
- *medium* probability;
- *high* probability.

The probability is quantified by assessing the likelihood of users, passing by or over the defect, encountering the risk. As the probability is likely to rise with increased vehicular or pedestrian flow, the network hierarchy and defect location are important considerations in the assessment.

Risk Factor and Management

The risk factor is the product of the impact and probability and is therefore in the range of 1 to 16. This factor identifies the overall seriousness of the risk and the associated response as shown in the Risk Matrix in Table 5 below.

Table 5

| Risk Matrix | | | | |
|---------------------------|----------------|----------------|----------------|----------------------------|
| Probability → Impact ↓ | Very Low (1) | Low (2) | Medium (3) | High (4) |
| Negligible (1) | 1 | 2 | 3 | 4 |
| Low (2) | 2 | 4 | 6 | 8 |
| Noticeable (3) | 3 | 6 | 9 | 12 |
| High (4) | 4 | 8 | 12 | 16 |
| Response Category | Category 2 (L) | Category 2 (M) | Category 2 (H) | Category 1 Safety Critical |

Defect Category

This defines the degree of urgency for which the repair needs to be undertaken. It is reflective of the nature, location and size of the defect and considers user risk.

| | |
|------------------------------|--|
| Cat 1 Safety Critical | Defects that present an immediate or imminent risk to the highway user, eg, missing manhole/gully cover, highway collapse. |
| Cat 2 High | Defects which may impact on the highway user but are not safety critical, eg, potholes, missing, misaligned or rocking flags/paving units. |
| Cat 2 Medium | These defects are not required to be urgently rectified and focus more on the serviceability needs of the highway. |
| Cat 2 Low | Response of a more routine nature that support the serviceability and sustainability of the highway network. |

Defect Response Times - Works Order Priorities

Table 6 - identifies Doncaster Councils' highway defect response times.

| Defect Category | Works Order/ Priority Code | Response | Repair type |
|----------------------------------|-------------------------------|--|----------------------------------|
| Cat 1 Safety Critical | 1 | 2 hour response from time of identification | Temporary or Permanent |
| Cat 2 High | 2 | Within 5 working days from the date of identification (Mon-Fri excluding bank holidays) | Temporary or Permanent |
| Cat 2 Medium | 3 | Within 25 working days from the date of identification (Mon-Fri excluding bank holidays) | Permanent |
| Cat 2 Low | 4 | Planned programmed works | Permanent |
| | | | |
| NRSWA | R | Report to Network Management | Determined by asset owner |
| Street Lighting | Use Street Lighting Contract | Report to asset owner | Determined by asset maintainer |
| Network Management | N | Report to Network Management | Determined by Network Management |
| Street Scene | S | Report to Street Scene | Determined by Street Scene |
| Drainage | Use Drainage Contract | Report to asset owner | Determined by asset maintainer |
| Operations | W | Report to Highway Operations | Works Not Done |
| Road Markings | L | Report to asset maintainer | Determined by asset maintainer |
| | | | |
| Bridges | B | Report to asset maintainer | Determined by asset maintainer |
| Maintenance | M | To be considered for future maintenance | Determined by asset maintainer |

Response allows for compliance with the requirements of the NRSWA 1991 and Traffic Management Act 2004.

Investigatory /Notification Levels

Table 7 - provides guidance to identify non safety critical defects that qualify for Category 2 safety repair Investigation or notification.

| Highway Feature | Surface Type | Defect | Investigatory Level Category 2 (action subject to RBA) |
|---|----------------|---|---|
| Carriageway | Flexible/Rigid | Pothole Depression(s) | As per Pothole Policy RBA |
| | Modular/Rigid | Abrupt difference in level. Missing unit. | 40mm All occurrences |
| Pedestrian Crossings Crossover Points Steps Footway Area Cycle Route Type A or B Kerb, Channel or Edging adjacent to a pedestrian paved area | Flexible/Rigid | Pothole Depression(s) | As per Pothole Policy RBA |
| | Modular/Rigid | Missing unit. Abrupt difference in level. Misaligned. Damaged. Rocking. | All occurrences 20mm 20mm 20mm 20mm |
| Kerb, Channel or Edging not adjacent to a pedestrian paved area | | Missing unit. Abrupt difference in level. Misaligned. Damaged. Rocking. | All occurrences 40mm 40mm 40mm 40mm |
| Verge | Unpaved | Damaged | RBA |
| Other Highway Features | | Defect | Investigatory Level for Notification to other service areas |
| Street Furniture | | Exposed wiring. Damaged, missing items | All occurrences |
| Third Party Reinstatements | | Depressions, Abrupt difference in level. | 20mm Footway 40mm Carriageway |
| Third Party Apparatus | | Defective, damaged, missing items | All occurrences |
| Obstructions | | Objects affecting visibility and/or passage, obscured items. | All occurrences |
| Road Markings and Road studs | | Missing, misleading or 75% worn | All occurrences |

The above tables are neither exclusive nor exhaustive.

Photographs
Examples of Typical Category 2 defects



Carriageway pothole



Level difference to broken/damaged flags



Loose or missing kerbs



Depression

Examples of Typical Category 1 defects



Lamp column door off



Collapse in Carriageway



Missing Manhole Cover

Inspector Qualifications and Training Training

All permanent and any temporary highway inspectors will be provided with and shall undertake training as necessary.

Qualifications

All permanent highway inspectors are expected to become qualified to the recommended standards as per the prevailing national Highway Maintenance guidance documents. This qualification shall, where possible, be undertaken within 12 months of appointment.

Prior to qualification, temporary highway inspectors or trainee inspectors shall work under the guidance of such qualified inspector(s) as necessary, in order to gain up to date knowledge and on the job experience.

Audits

To maintain the quality of the service, regular internal inspection audits will be undertaken based on the contents of this policy and the guidance given in the highway inspection manual. Following an audit, repeat safety inspections may be undertaken if considered necessary. Refresher training will be provided and shall be undertaken, along with a period of close monitoring, to ensure areas of concern have been addressed.

Updates and Refresher Training.

Where appropriate, following inspection audit reviews, updates to the policy, changes to the inspection manual, or any other reason deemed necessary toolbox talks will be carried out to update all relevant personnel.

When required, further training will be undertaken to ensure that the recognised highway inspectors qualification is correctly maintained and renewed as required.

Glossary of Terms

| | |
|--------|---|
| CopHMM | Code of Practice for Highways Maintenance Management (CoPHMM) |
| WMHI | Well-Managed Highway Infrastructure |
| HGV | Heavy Goods Vehicle |
| HMEP | Highways Maintenance Efficiency Programme |
| HSIM | Highway Safety Inspection Manual |
| HSIP | Highway Safety Inspection Policy |
| PRN | Principal Route Network |
| PSV | Public Service Vehicle |
| RBA | Risk Based Approach |

Acknowledgements

This policy has been developed with the support of the following consultees:

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Parklane Plowden Chambers – Leeds

Doncaster Councils Highway Asset Maintenance Department

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END OF POLICY
