



**Doncaster**  
Metropolitan Borough Council

# **DONCASTER METROPOLITAN BOROUGH COUNCIL**

## **HIGHWAYS SAFETY INSPECTIONS POLICY**

Regeneration and Environment  
Highway Asset Maintenance

V.01.01 (Sept 2016)

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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-Maintained Highways - Code of Practice for Highway Maintenance Management July 2005 (CoPHMM) 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)**.

<b>Version</b>	<b>Date</b>	<b>Author / Designation</b>
01.01	Sept 2016	David Snell / Senior Engineer Highways Routine Maintenance

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

The frequency of safety inspections on footways are predominately defaulted to that of the adjacent road hierarchy.

## **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 Maintained Highways - Code of Practice (CoPHMM) for Highways Maintenance July 2005, with particular reference to Section 9 of the CoPHMM–Inspections Assessment and Recording which states...

*“The establishment of an effective regime of inspection, assessment and recording is the most crucial component of highway maintenance. The characteristics of the regime, including 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 network condition.”*

Authorities are strongly advised to undertake safety inspections in accordance with the guidance of the CoPHMM in order that, when necessary, they 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 CoPHMM provides guidance it recognises the need for reasonable local discretion and diversity reflective of regional differences and allows adaptations based on a consideration of local circumstances.

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 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 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 from the adopted carriageway, footway/cycleway and verge areas to 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 which promote its safety and continued serviceability.

The definition and application of highways maintenance impacts and reflects upon the user needs of the highway:

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

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.

## **Survey Network**

Doncaster's highway network for inspection comprises circa 1700km roads and 1800km footways and, valued at around £2bn, it is the Councils' most valuable public asset.

## **Network Hierarchy**

The highway network is defined by 'hierarchy' based on guidance from the CoPHMM. 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 Highways England.

### **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 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**

<b>Doncaster MBC Carriageway Hierarchy</b>				
<b>Carriageway Hierarchy</b>	<b>Hierarchy Description</b>	<b>Type of Road General Description</b>	<b>Network Coverage</b>	<b>Network Interpretation</b>
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. They may be only single lane width and are generally unsuitable to carry frequent HGV traffic.
5	Rural Unclassified Roads	Roads serving limited numbers of properties carrying only access traffic	Remaining road network comprising of:-	
6	Service/Back Roads		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**

<b>Doncaster MBC Footway Hierarchy</b>			
<b>Footway Hierarchy</b>	<b>Hierarchy Description</b>	<b>Description</b>	<b>Interpretation</b>
1 (a)	Prestige Walking Route	Very busy areas of towns and cities with high public space and streetscene 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**

<b>Hierarchy Category</b>	<b>Description</b>
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**

Inspection frequency is based on hierarchy. The CoPHMM provides guidance as to how often highway authorities may choose to inspect their highway network, recognises the need for reasonable local discretion and diversity reflective of regional differences and allows adaptations based on a consideration of local circumstances.

Circumstances outside our control e.g. weather conditions or network availability, may result in highway inspections not being carried out on their due date. The following delays are considered reasonable:-

<b><u>Target Insp Frequency</u></b>	<b><u>Tolerance</u></b>
Monthly	+ 1 week
3 Monthly	+ 2 weeks
6 Monthly	+ 3 weeks
Annual	+ 4 weeks

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

Table 4 provides Doncaster Councils' highway safety inspection frequencies.

**Table 4**

<b>Feature</b>	<b>Hierarchy</b>	<b>Description</b>	<b>Frequency</b>
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	6 months
	C	Cycle Trails	Not included in this policy

## **Risk Based Approach (RBA)**

### **Defect Risk Assessment**

Any item or asset with a defect level which equals or exceeds the stated defect intervention 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 assumed 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 increasing 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. It is this factor that 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.

<b>Cat 1 Safety Critical</b>	Defects that present an immediate or imminent risk to the highway user, eg, missing manhole/gully cover, highway collapse.
<b>Cat 2 High</b>	Defects which may impact on the highway user but are not safety critical, eg, potholes, missing, misaligned or rocking flags/paving units.
<b>Cat 2 Medium</b>	These defects are not required to be urgently rectified and focus more on the serviceability needs of the highway.
<b>Cat 2 Low</b>	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
<b>Cat 1 Safety Critical</b>	1	2 hour response from time of identification	Temporary
<b>Cat 2 High</b>	2	Within 5 working days from the date of identification (Mon-Fri excluding bank holidays)	Temporary or permanent
<b>Cat 2 Medium</b>	3	Within 25 working days from the date of identification (Mon-Fri excluding bank holidays)	Permanent
<b>Cat 2 Low</b>	4	Planned programmed works	Permanent
<b>Assessments</b>	A	Consider for localised assessment	Determined by asset maintainer
<b>NRSWA</b>	R	Report to Network Management	Determined by asset owner
<b>Street Lighting</b>	S	Report to asset owner	Determined by asset maintainer
<b>Network Management</b>	T	Report to Network Management	Determined by Network Management
<b>Streetscene</b>	F	Report to Streetscene	Determined by Streetscene
<b>Drainage</b>	D	Report to asset owner	Determined by asset maintainer
<b>Operations</b>	W	Report to Highway Operations	Determined by asset maintainer
<b>Road Markings</b>	L	Report to asset maintainer	Determined by asset maintainer
<b>Inspection Note</b>	N	Note only	N/A

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

### Intervention/Notification Levels

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

Highway Feature	Surface Type	Defect	Intervention Level Category 2 (action subject to RBA)
Carriageway Cycle Route Type A	Flexible/Rigid	Pothole	As per Pothole Policy
	Modular/Rigid	Abrupt difference in level. Missing unit.	40mm All occurrences
Pedestrian Crossings Crossover Points Steps Footway Area Cycle Route Type B Kerb, Channel or Edging adjacent to a pedestrian paved area	Flexible/Rigid	Pothole	As per Pothole Policy
	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	Intervention 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, significantly worn or misleading	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

**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 Highway Maintenance Code of Practice. 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 shall be undertaken if considered necessary.

### **Updates and Refresher Training.**

Where appropriate, following inspection audit reviews, updates to the policy or changes to the inspection manual, refresher training will be provided and undertaken.

**Glossary of Terms**

CopHMM	Code of Practice for Highways Maintenance Management (CoPHMM)
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

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**END OF POLICY**

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