

# North Yorkshire Council

## Executive Members

28 July 2023

### Review of Highway Safety Inspection Manual

#### Report of the Assistant Director – Highways and Transportation, Parking Services, Street Scene, Parks and Grounds

#### 1.0 PURPOSE OF REPORT

- 1.1 To enable the Corporate Director Environment, in consultation with the Executive Member for Highways and Transportation to consider the proposed changes to the Highway Safety Inspection Manual V2.0 and to approve the new version V3.0.

#### 2.0 BACKGROUND

- 2.1 The first version of the Highway Safety Inspection Manual (HSIM) was approved by the Corporate Director, Business and Environmental Services in consultation with the Executive Members at their meeting of 25 October 2013. It was produced with the primary aim of providing operational guidance to those officers involved in undertaking highway safety inspections. It details the intervention levels applicable to a variety of defects found on the highway and links this to the appropriate response time for repair. It therefore ensures that a consistent countywide approach is adopted for inspecting, assessing, recording, and repairing the highway network.
- 2.2 The HSIM is subject to regular reviews, the last was a light touch review in 2018. In addition, minor amendments were introduced to the document in 2020 relating to single crewed inspections in response to the Covid-19 pandemic. These updates were presented to Executive Members on 07 May 2020, then again on 18 December 2020, 13 July 2021, 22 October 2021, and 18 February 2022. Due to Covid-19 the HSIM review scheduled for 2021 was deferred for a year, with work commencing on the review towards the end of 2022.
- 2.3 A key driver of the review is to make sure the HSIM is still relevant and compliant with any new legislation and codes of practice. The review has benchmarked against the Department for Transport's 'Well-managed highway infrastructure' and also mirrors any good practice found from other local authorities of a similar size and nature.

#### 3.0 PROPOSED ACTION

- 3.1 The changes to the proposed HSIM are detailed in **Appendix A** and the final version shown in **Appendix B**. Many of the changes are relatively minor and are needed to give clarity and consistency to the standards which already exist within the HSIM.
- 3.2 Clarification is given that single-crewed driven inspections (inspections without a dedicated driver being present) can be carried out from a slow-moving vehicle in low-risk situations.
- 3.3 The guidance on footway defects has been improved to recognise the potential impact on people with protected characteristics.

## 4.0 REVIEW PROCESS

4.1 The review included input from Highway Maintenance Managers (with contributions from Highway Officers) and is summarised below.

- Clarification of intervention criteria on layby's / informal laybys and chipping dumps
- If we increased our standards and lower intervention levels, we would struggle to get the work done
- Information on the procedure for diseased trees
- Distinction between when potholes become 'edge damage' and then a 'verge rut'
- Some unrealistic timescales in the current HSIM such as vehicle restraint systems (VRS) repairs, lining and road studs. However, the difficulties of lowering standards were acknowledged
- Inspection of sub-surface drainage assets, combined kerb drainage, catchpits and interceptors
- Mapping and inspection regime needed for footways taken over by Public Rights of Way (PRoW)
- Concerns were expressed over the potential increase to maintainable highway because of LGR highway type assets, for example, transferring from existing District Council to the new Authority. The document makes clear that no such transfer has taken place but that there could be some instances where a fit for purpose inspection and repair is warranted.
- General comments around updating the photographs in the HSIM

4.2 Also as part of this review, input from other service areas was requested and two separate discussions were held.

The first discussion was on 30 August 2022 and was attended by:

- HSIM Project Group
- Team Leader, Highway Asset Management
- Senior Transport Planning Officer
- Team Leader, Transport Planning

4.3 The key themes from that discussion comprised:

- Sustainable transport – as cycling and walking is being actively encouraged as modes of transport should we consider enhancing standards on these routes, particularly cycle routes
- Making the interim standards (lower intervention levels) at level crossings permanent
- Lining – inclusion of a paragraph within the HSIM stating that the Highway Officer reviews AI data – this provides a lining score based on a link and section
- A link between the new skid resistance policy and the HSIM
- Defining skips and scaffolds in the policy – reference for Highways Officer in HSIM so they know what to do and who picks this up
- Traffic data sites – loop damage in the carriageway should be included
- PRoW flagged/tarmac are not routinely inspected, define in HSIM that they are responsive surveys only.

4.4 A second discussion was held on 26 September 2022 and was attended by:

- HSIM Project Group
- Senior Insurance Risk Technician
- Senior Lawyer, Business and Environment

- 4.5 From an Insurance and Risk Management, and Legal perspective, the following comments were made:
- The current trend of insurance claims is more footway than carriageway claims. The majority of these are surface differences, such as raised / damaged paving stones
  - Any slackened intervention levels would need strong evidence to justify them
  - Any changes to the HSIM need to be manageable and deliverable
  - Proposed changes to the HSIM need to be looked over by an external lawyer first to make sure they are comfortable with the changes
- 4.6 Following on from advice by Insurance and Risk and Legal, NYC's external lawyers (Kennedy's Law), minor comments were made:
- Consider schools and nurseries to the section relating to vulnerable people
- 4.7 Comments were also received from the Traffic Engineering team, these comments related to signs, lines and ensuring that references to regulations and standards were the most current; most of these had already been discussed as part of the review and changes made as necessary.
- 4.8 Discussions with Street Works requested the reference to the Code of Practice for Street works Inspections April 2023.

## **5.0 ALTERNATIVE OPTIONS CONSIDERED**

- 5.1 A 'do nothing' approach could mean that the HSIM is not in line with current legislation and codes of practice.

## **6.0 FINANCIAL IMPLICATIONS**

- 6.1 There are no financial implications arising directly from this report. Although some changes to the HSIM may have financial implications, the activity will continue to be managed within existing budgets.

## **7.0 LEGAL IMPLICATIONS**

- 7.1 The HSIM forms a key part of our approach to maintaining and inspecting the highway and the discharge of our duties under the 1980 Highways Act.

## **8.0 EQUALITIES IMPLICATIONS**

- 8.1 Consideration has been given to the potential for any adverse equality impacts arising from the recommendation. It is of the view of officers that the recommendation does not have any adverse impact on any of the protected characteristics identified in the Equalities Act 2010 and so no major change needed to the proposal (**see Appendix C**).

## **9.0 CLIMATE CHANGE IMPLICATIONS**

- 9.1 Consideration has been given to the potential for any adverse climate change impacts arising from the recommendation, and a climate change impact assessment has been completed (**see Appendix D**). It is the view of officers that such a recommendation does not have an adverse impact on climate change, and as such, there is no need for a climate change impact assessment.

## **10.0 REASONS FOR RECOMMENDATIONS**

- 10.1 The HSIM review has been completed in line with NYC's risk-based approach and has included minor amendments which are based on legislation and codes of practice.

## **11.0 RECOMMENDATION**

- 11.1 It is recommended that the Corporate Director for Environment in conjunction with the Executive Member for Highways and Transportation approves the changes to the Highways Safety Inspection Manual identified in **Appendix A** and the subsequent adoption of the new version V3.0 of the HSIM contained in **Appendix B**.

### **APPENDICES:**

- Appendix A – Proposed changes to HSIM
- Appendix B – Proposed HSIM
- Appendix B – Equality Impact Assessment
- Appendix C – Climate Change Impact Assessment

### **BACKGROUND DOCUMENTS:**

Highways Safety Inspection Manual [Highway safety inspection manual \(northyorks.gov.uk\)](http://northyorks.gov.uk)

Barrie Mason  
Assistant Director – Highways and Transportation, Parking Services,  
Street Scene, Parks and Grounds

Report Author – Hannah Benson, Area Manager Areas 5 and 7

## Review of Highways Safety Inspection Manual Version 3 – April 2023

All references to North Yorkshire County Council or NYCC to be changed to North Yorkshire Council or NYC throughout.

- P1 Change North Yorkshire Council logo to North Yorkshire Council logo. Change highways North Yorkshire logo to NY Highways logo.  
Change photo and version date.



Suggested new photo for front cover

- P2 Version changes from 2.0 to 3.0. Author changed to Hannah Benson. Approval by K Battersby and Environment Executive Members. Approval date to be inserted. Review date April 2023 (three-year review delayed by COVID-19). Reviewing Officer Area Manager.

Update document control with new dates and version

Following this review, a new review date and a reviewing officer will need to be specified.

Further Documentation

Include a link to Equality Impact Assessment.

Change Well-maintained Highways to Well-managed Highways

Include Code of Practice for Street Works Inspections

### Equality Impact Assessment

Equality Impact Assessment has been completed and will be updated at subsequent reviews.

- P3 Contents – this will be updated once all other changes have been made.

- P4 Change paragraph 2 to the following:  
This manual was subject to review in 2021; minor amendments were made to the manual in 2020, but due to the Covid-19 pandemic, a full review was deferred until 2022 due to the Covid-19 pandemic. Recommendations have been incorporated into the general text wherever appropriate.

Add the following paragraphs after paragraph 2:

This manual is for use when managing those Highways Maintainable at Public Expense which have been formally paved and included on the Councils List of Streets in accordance with section 36(6) of the Highways Act 1980. In addition, there is a prescribed list of routes which are included on the Definitive Map and Statement in accordance with section 53 of the Wildlife and Countryside Act 1981 which have been formally paved and their management is covered by this manual. Those Unsurfaced Unclassified Roads on the List of Streets are not included within this manual as their maintenance management is in accordance with routes included on the Definitive Map and Statement.

There are many private streets within the area which are not included on either the List of Streets or the Definitive Map and Statement, and these are not the responsibility of the Council as local highway authority. No inspections are carried out on these and their management is not covered by this manual; however, the local highway authority acknowledges that it has powers to repair highways and if requested by the landowner may consider undertaking repairs on condition that all costs are reimbursed. It should be noted that the repair of private highways is not a responsibility of the Council as local highway authority.

Change North Yorkshire County Council to North Yorkshire Council.

- P5 Add the following paragraph before paragraph on Highways Officers accreditation  
Where required, Highways Officers can use Road AI to assist in ensuring defects that meet the criteria of this manual are identified, recorded, and actioned. Specific examples could include identifying line marking defects.
- P5 Last paragraph – change North Yorkshire County Council to North Yorkshire Council.
- P6/7 Slight rewording of Walked Inspections  
Inspection of footways and cycleways in urban areas subject to a 30mph restriction or less will normally be walked with all data directly entered into the handheld data capture device at the time of the inspection.
- Inspection of footway category 1a, 1, 2, 3 and 4 will normally be walked. When there are footways on both sides of the carriageway, both footways shall be walked. When carrying out walked footway inspections, the adjoining carriageway will also be inspected by observation from the adjacent footway.
  - Inspection of footway category 5 will normally be carried out as part of the driven inspection along the adjacent carriageway. The Highways Officer must walk any sections where parked vehicles restrict the view of the full highway extent or where the footway is elevated so that it cannot be viewed from the inspection vehicle. When a driven inspection is being carried out and there is a footway present on both sides of the carriageway, the road will be driven in both directions.
- P7 **Driven inspections**  
Paragraph 1 -Driven inspections can be carried out from a slow-moving Inspection vehicle (marked 'SURVEYING'), specifically designed for this purpose with both a driver and Highways Officer present at all times.
- Paragraph 2  
Driven inspections can be carried out from a slow-moving vehicle without a dedicated driver being present, in low-risk situations. This would be in situations where any actionable defects can still be identified and there are no additional public safety risks from not having a dedicated driver. In such circumstances the normal safety inspection vehicle may be replaced with an appropriately liveried Highways Officer's van. In urban areas the inspection will be carried out at no more than 10 mph on category 4b roads and 20 mph on higher category roads and in both directions; the Highways Officer must walk any sections where parked vehicles restrict the view of the full highway extent. A record must be kept of the inspection method used.

Paragraph 6 - All reasonable precautions must be taken to ensure the inspection is carried out safely (Risk assessments can be found on the NYC intranet site under Health and Safety). If at the time of inspection, the Highways Officer considers it too dangerous to complete a route safely then he or she should consult with their line manager for advice and record actions.

Paragraph 7 – In rural areas the maximum speed of the inspection vehicle throughout an inspection will be 20mph.

- P14 Add the following sentence to the end of paragraph 3 and in line with the Department for Transport's Code of Practice for Street Works Inspections
- P15 Additional paragraph at the end of Random Inspection (1) section.  
An audit will be carried out by the relevant Maintenance Manager towards the end of probationary periods for new Highway Officers. This will ensure the accuracy and quality of inspections and works orders.
- P17 Alter the first at the end of hierarchy table  
\* Intervention levels in this document do not apply to Category 6 roads. Category 6 roads are managed reactively, no inspections are scheduled; however, upon receiving a customer report the Countryside Access Teams UUR Officer will inspect the site, report the condition and arrange repair where necessary.
- P18 Additional paragraph at the end of the page  
Where National Cycle Network Routes (NCN) are on or are on carriageway or part of a shared cycle/pedestrian path they shall be inspected at the same frequencies as the corresponding carriageway/footway hierarchy; however, cycleway intervention tolerances should be applied to these routes.
- P20 Change North Yorkshire County Council to North Yorkshire Council.
- P23 Change last paragraph to:  
This Manual is a guide to assist the Highways Officer in undertaking a risk assessment of the defect. It provides a framework which links intervention levels to response times and covers a number of examples which act as a starting point in the decision-making process. Highways Officers are expected to use their judgement to assess the risks that apply to the particular on-site circumstances and use their expertise to select the most suitable priority for repair. As a result, there will be circumstances where the priority assigned is different to that given in the worked examples in the Manual. Examples of this could include footways around elderly person's homes, doctors' surgeries, day care centres, schools, nurseries, hospitals, post offices etc, which would increase the overall risk factor. The reasons for this decision should be recorded at the time of the inspection.
- P24 Change intervention level on 2.4 to 40mm wide x 20mm deep.
- P29 Change last paragraph in comments section to:  
Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road, such as tactile crossings and dropped footway kerbs.
- P30 Change last paragraph in comments section to:  
Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road, such as tactile crossings and dropped footway kerbs.

- P31 Change last paragraph in comments section to:  
Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road, such as tactile crossings and dropped footway kerbs.
- P32 Change 2.4 to read Open Joint deeper than 20mm.  
Change second paragraph in comments section to:  
Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road, such as tactile crossings and dropped footway kerbs.
- P33 Change second paragraph in comments section to:  
Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road, such as tactile crossings and dropped footway kerbs.
- P34 Change second paragraph in comments section to:  
Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road, such as tactile crossings and dropped footway kerbs.
- P42 Include a second paragraph (copied from 1.1 carriageways on page 27)  
On defined cyclist routes, defined cyclist routes, narrower defects meeting the depth requirements should be considered for repair if the defect is more than 75mm wide and 300mm long in the direction of travel with a sloping exit face or 150mm long for an abrupt exit face. These defect dimensions refer to the parts of the defect which exceed the intervention depth.
- P44 Cropped photograph to remove the face of person walking on footpath.
- P48 Include the following after the first paragraph in the comments box:  
This includes covers within cycleway and cycle lanes  
  
Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.
- P49 Include the following paragraphs in the comments box (paragraphs 3 and 4)  
This includes covers within cycleway and cycle lanes  
  
Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.
- P50 Include the following after the first paragraph in the comments box:  
This includes covers within cycleway and cycle lanes  
  
Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.
- P51 Include the following after the first paragraph in the comments box:  
Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.
- P52 Include the following in the comments box:  
Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.



P53 Include the following in the comments box:  
Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.

P54 Include the following in the comments box:  
Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.

P55 Include the following in the comments box:  
Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.

P56 Include the following in the comments box:  
Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.

P59/65 Change Not withstanding to Notwithstanding

P71 Add paragraph at the end of comments:  
Action should be taken to either clean or replace signs is required within the timescales above.

P73 Amend impact and priority response for category 3 trees

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Broken and hanging branches	2	4	4	16	2
	3a Urban	4	4	16	2
	3a Rural	4	4	16	2
	3b Urban	4	4	16	2
	3b Rural	4	4	16	2
	4a Urban	3	4	12	3
	4a Rural	3	4	12	3
	4b Urban	3	4	12	3
	4b Rural	3	3	9	4
	5	2	3	6	4

P75 Amend last sentence of first paragraph. New paragraph reads

If the bush or tree is growing within the highway extents, it will be the responsibility of the Highway Authority. If the bush or tree is growing outside of the highway extents (boundary walls, hedges and fences are usually the responsibility of the adjacent property owner) the Highways Officer should make contact with the property owner and request the cutting back or removal in accordance with NYC's Trees in the highway policy and the Highways Act 1980.

Minimum clearance above footway should be 2.4 metres.

P82 Change North Yorkshire County Council to North Yorkshire Council (x2)  
Include an additional definition:

Road AI - Artificial Intelligence which is used to collate highway condition data and asset inventory data such as road signs, road linings and markings.

P84 In legislation relevant to and / referred to in this document add the following:

Equality Impact Assessment

Change well-maintained Highway Infrastructure to Well-managed Highway Infrastructure

Change North Yorkshire County Council Highways Maintenance Plan to North Yorkshire Council Maintenance Plan

Add Code of Practice for Street Works Inspections April 2023

P87 Remove hNY and replace with NYH, change North Yorkshire County Council to North Yorkshire Council

Change:

ii) NYH is North Yorkshire Highways



# Highway Safety Inspection Manual

Version 3.0 April 2023

<b>Status:</b> Approved		<b>Issue Reference:</b> Version 3.0
<b>Title</b>	Highway Safety Inspection Manual	
<b>Document Type</b>	Policy	
<b>Author</b>	H Benson	
<b>Approved By (including date)</b>	K Battersby & Environment Exec Members (to add)	
<b>Approval Date</b>	****	
<b>Issue Date</b>	****	
<b>Review Date</b>	April 2023 (three year review delayed by COVID-19)	
<b>Reviewing Officer</b>	Highways Area Manager	
<b>Links to other NYCC documents</b>	Highway Maintenance Plan, Highway Infrastructure Asset Management Policy and Strategy, Equality Impact Assessment	

Document Control	Date	Version	Comment
Approved Document	April 2023	3.0	H Benson
Approved Document	Sept 2018	2.0	Light touch review linked to risk based approach (no change)
Approved Document	Feb 2017	2.0	At three year review
Approved Document	Oct 2013	1.6	N Leighton
Under Development	July 2013	1.6	D Wilson
Under Development	April 2013	1.5	D Wilson
Initial Development	April 2012	1.0	D Wilson

### Scope

This Manual has been adopted Countywide as Best Practice.

### Legislation and Standards

The Highways Act 1980

The New Roads and Street Works Act 1991

Road Traffic Regulation Act 1984

Traffic Signs, Regulations & General Directions 2016

Road Traffic Act 1988

The Traffic Management Act 2004

Railways and Transport Safety Act 2003

### Further Documentation

Well-managed Highway Infrastructure - A Code of Practice

Traffic Signs Manual (Chapters 1 – 8)

Code of Practice for Street Works Inspections

### Policy Statement

This Manual has been developed with the primary aim of providing operational guidance to those officers involved in undertaking highways safety inspections in order to ensure a consistent countywide approach by utilising a formalised system that prescribes the frequency of inspections and the method of assessing, recording and responding to defects in the highway.

### Equality Impact Assessment

Equality Impact Assessment has been completed and will be updated at subsequent reviews.

# Contents.

<b>1</b>	<b>INTRODUCTION</b>	<b>4</b>
<b>2</b>	<b>INSPECTION PROCEDURES</b>	<b>6</b>
	2.1 Cyclic Inspections	6
	2.2 Site Specific or Ad Hoc Inspections	8
	2.3 Observation Assessments	9
	2.4 General Duty to Maintain	13
	2.5 New Roads and Street Works Act	14
	2.6 Performance Management	15
<b>3</b>	<b>METHODOLOGY</b>	<b>16</b>
	3.1 Frequency of Inspections	16
	3.2 Items for Inspection	19
	3.3 Priority Response Times	20
	3.4 Risk assessments including Risk Matrix	22
<b>4</b>	<b>RISK REGISTER ENCOMPASSING PARAMETERS OF DEFECTS, INTERVENTION LEVELS AND RISK MATRIX APPLICATION</b>	<b>24</b>
<b>5</b>	<b>APPENDICES</b>	
	Appendix A                      Glossary of Terms	82
	Appendix B                      Removed from the 2017 reviewed document	83
	Appendix C                      Schedule of related documentation & Legislation	84
	Appendix D                      Toxic and non Toxic deposits on the Highway	85
	Appendix E                      Cattle Grid Inspection	88

# 1 – Introduction

This Manual has been developed with the primary aim of providing operational guidance to those officers involved in undertaking highways safety inspections in order to ensure a consistent countywide approach by utilising a formalised system that prescribes the frequency of inspections and the method of assessing, recording, and responding to defects in the highway.

This manual was subject to review in 2021; minor amendments were made to the manual in 2020, but due to the Covid-19 pandemic, a full review was deferred until 2022 due to the Covid-19 pandemic. Recommendations have been incorporated into the general text wherever appropriate.

This manual is for use when managing those Highways Maintainable at Public Expense which have been formally paved and included on the Councils List of Streets in accordance with section 36(6) of the Highways Act 1980. In addition, there is a prescribed list of routes which are included on the Definitive Map and Statement in accordance with section 53 of the Wildlife and Countryside Act 1981 which have been formally paved and their management is covered by this manual. Those Unsurfaced Unclassified Roads on the List of Streets are not included within this manual as their maintenance management is in accordance with routes included on the Definitive Map and Statement.

There are many private streets within the area which are not included on either the List of Streets or the Definitive Map and Statement, and these are not the responsibility of the Council as local highway authority. No inspections are carried out on these and their management is not covered by this manual; however, the local highway authority acknowledges that it has powers to repair highways and if requested by the landowner may consider undertaking repairs on condition that all costs are reimbursed. It should be noted that the repair of private highways is not a responsibility of the Council as local highway authority.

In this Manual the term Intervention Level has been introduced to define the minimum criteria at which making safe or repairing (intervention) will take place. This guidance builds on and extends from that contained in the North Yorkshire Council Highway Maintenance Plan.

In complying with its duty to maintain the highway, as outlined within Section 41 of the Highways Act 1980 and for the purposes of Section 58, which provides for special defence, North Yorkshire Council undertakes inspections of the highway incorporating the carriageway, footway, grass verge and pathways upon which the public have a right of access, and which are maintained at public expense.

Section 41 of the Highways Act 1980 imposes a duty on the Highway Authority (North Yorkshire Council) to maintain those roads, footways and cycle tracks that are 'highways maintainable at public expense'.

Section 58 of the Highways Act 1980 states that a statutory defence against third party claims is provided where the Highway Authority can establish that reasonable care has been taken to 'secure that the part of the highway to which the action relates' to a level commensurate with the volume of ordinary traffic such that it 'was not dangerous to traffic'.

Section 130 of the Highways Act 1980 places a general duty on the Highway Authority to 'assert and protect the rights of the public' in their lawful use of the highway.

Section 81 of the New Roads and Street Works Act 1991 places a duty on Utility Companies to maintain their apparatus to the reasonable satisfaction of the Highway Authority.

This manual deals with safety inspections that are derived from two main sources:

1. **Planned Cyclic Safety Inspections**  
To identify defects which are hazardous (to any user of the highway including drivers, pedestrians, equestrians, and cyclists) so that an effective repair can be carried out within a predetermined response time.  
Cyclic Safety Inspections are carried out to specified frequencies, dependent upon the hierarchy of each highway. During the inspection, defects that are at or exceed the minimum intervention levels (subject to Risk Assessment), as outlined in Section 3.4, are identified, and processed for repair.
2. **Reactive Safety Inspections**  
In response to particular circumstances, such as reports of defects from the police, general public, other agencies and utilities.

In addition to and concurrent with a Highway Safety Inspection the following are also observed:

- **Observation Assessments**  
To consider the general condition of the individual roads and pavements and the need for planned structural maintenance which can be programmed accordingly.
- **Utility Company Apparatus**  
Inspected concurrent with a Highway Safety Inspection with, where appropriate, notification being sent to the relevant party requiring them to undertake remedial action under section 81 of the New Roads and Street Works Act 1991.

All data arising from Highway Safety Inspections is entered via a vehicle mounted or hand held data capture device with the resultant data being stored within a computer programme hereafter referred to as INSIGHT.

Highway Safety Inspections are undertaken by Highways Officers. The Highways Officer is required to record any defects which are deemed to require repair when applying the criteria in this manual. Defects which do not meet the criteria given in this manual do not need to be recorded.

Where required, Highways Officers can use Road AI to assist in ensuring defects that meet the criteria of this manual are identified, recorded, and actioned. Specific examples could include identifying line marking defects.

Highways Officers will be accredited to Highway Inspection - Technical (Lantra) level as part of on-going workforce development.

This manual has been introduced to ensure consistency of Inspection in line with guidance provided by the North Yorkshire Council Insurance and Risk Management Team in conjunction with the Council's Insurers and Claims Handlers.

## 2 – Inspection Procedures

### 2.1 - Cyclic Inspections

All highway safety inspections will be carried out to the frequencies detailed in Part 3 Methodology, section 3.1 of this manual and must be completed as follows:

Frequency of Inspection	Completed by ....
Monthly	Due Date or 1 week before the Due Date
Quarterly	Due Date or 2 weeks before the Due Date
Six Monthly	Due Date or 3 weeks before the Due Date
Annual	Due Date or 4 weeks before the Due Date

#### Definition of above terms;

- Frequency of Inspection - Monthly indicates that twelve regular spaced inspections will be carried out per year.
- Frequency of Inspection - Quarterly indicates that four regular spaced inspections will be carried out per year.
- Frequency of Inspection - Six Monthly indicates that two regular spaced inspections will be carried out per year.
- Frequency of Inspection - Annual indicates that one regular spaced inspection will be carried out per year.
- Due Date is the final date by which an inspection must be completed.

#### But subject to the following limitations;

- If and for reasons beyond the control of the Highways Officer (eg substantial snow fall), an inspection cannot be carried out by the Due Date then an entry should be made to document the circumstances.
- Due to the nature of the weather in North Yorkshire it is probable that the road surface will be wet with some elements of standing or running water whilst an inspection is in progress, however if the quantity of water is excessive or across the full width of the carriageway then the inspection should be abandoned, and an entry should be made to document the circumstances.
- As soon as possible following the above events an ad-hoc safety inspection (see section 2.2) should be carried out on the effected length of highway.

#### Notes:

- If a Monthly Inspection Due Date falls on a Saturday or Sunday, the Highways Officer schedules the Inspection for one day in the week prior to the Due Date. The Data management system will automatically schedule the next Inspection from the original Due Date.
- If an Inspection Due Date falls during an extended period of absence eg Highways Officer holiday or illness, then the Inspection must be allocated to another Highways Officer who has the capacity to carry out the Inspection on or before the Due Date as outlined above.
- The monthly inspections can be undertaken up to 1 week after the due date as long as no more than five weeks have elapsed since the last inspection. This can only occur for legitimate operational reasons and is limited to no more than two occurrences in any given year. Note: A late inspection will be reported on the system hence separate records need to be kept of any occurrences and the reason they occurred.

#### Walked Inspections

Inspection of footways and cycleways in urban areas subject to a 30mph restriction or less will normally be walked with all data directly entered into the handheld data capture device at the time of the inspection.

- Inspection of footway category 1a, 1, 2, 3 and 4 will normally be walked. When there are footways on both sides of the carriageway, both footways shall be walked. When carrying out walked footway inspections, the adjoining carriageway will also be inspected by observation from the adjacent footway.
- Inspection of footway category 5 will normally be carried out as part of the driven inspection along the adjacent carriageway. The Highways Officer must walk any sections where parked vehicles restrict the view of the full highway extent or where the footway is elevated so that it



cannot be viewed from the inspection vehicle. When a driven inspection is being carried out and there is a footway present on both sides of the carriageway, the road will be driven in both directions.

- Inspection of cycleways will either be walked or carried out using a bicycle.
- It is recognised that parked vehicles can present a visual obstruction to the inspection process. However, it is also recognised that removal of all parked vehicles from large sections of the highway would cause major disruption to residents, be difficult to enforce and impractical to provide any alternative parking. The Highways Officer must do all that is reasonably practicable to ensure that any defects are identified and recorded. The best view under a parked vehicle is obtained by not standing too close, the shallow angle of sight affording the greatest opportunity to identify defects and the space between all parked vehicles must be closely examined.

### **Driven Inspections**

Driven inspections can be carried out from a slow-moving inspection vehicle (marked 'SURVEYING'), specifically designed for this purpose, with both a driver and Highways Officer present at all times.

Driven inspections can be carried out from a slow-moving vehicle without a dedicated driver being present, in low-risk situations. This would be in situations where any actionable defects can still be identified and there are no additional public safety risks from not having a dedicated driver. In such circumstances the normal safety inspection vehicle may be replaced with an appropriately liveried Highways Officer's van. In urban areas the inspection will be carried out at no more than 10 mph on category 4b roads and 20 mph on higher category roads and in both directions; the Highways Officer must walk any sections where parked vehicles restrict the view of the full highway extent. A record must be kept of the inspection method used.

The paragraph on parked cars in 'Walked Inspections' equally applies to driven inspections.

All data will be entered on-site into either a vehicle mounted or handheld data capture device.

The driver of the Inspection vehicle, although not required to be a Highways Officer, must have had experience of Highway Network Surveys or Inspections prior to commencing a live driven Inspection.

All reasonable precautions must be taken to ensure the inspection is carried out safely (Risk assessments can be found on the NYC intranet site under Health and Safety). If at the time of inspection, the Highways Officer considers it too dangerous to complete a route safely then he or she should consult with their line manager for advice and record actions.

In rural areas the maximum speed of the inspection vehicle throughout an inspection will be 20mph.

Inspection of dual and multilane (3 or more) sections of carriageway will be in both directions at each Inspection.

Both the Inspection vehicle and Highways Officers transport associated with walked inspections will be equipped with the following equipment to assist with an emergency:

Equipment	Inspection Vehicle	Transport Vehicle
Sweeping brush	✓	✓
Shovel	✓	✓
Spade	✓	✓
Lump Hammer	✓	✓
Bushman Saw	✓	✓
Loppers	✓	✓
2 No Tubs of Pavement Repair Material	✓	✓
2 No Adjustable Spanners	✓	✓
1 No 5mm Hex Allen Keys	✓	✓
6 No 450mm Road Cones		✓
6 No 750mm Road Cones	✓	
2 No fold up traffic signs each of Men at Work, Road Narrows, Keep Left / Right	✓	✓

All the above should be kept in good clean useable condition and any used material or damage items replaced before the next inspection day.

All road signs should be 'fold-up' or 'cone-mounted' to reduce storage space.

## 2.2 – Site Specific or Ad-hoc Inspections

Any individual safety-related defect identified and inspected outside a planned or ad-hoc cyclic safety inspection originated from any source eg Police Report, Public Communication, Highways Officer identified etc is recorded through the issuing of a works order. Regardless of whether a defect reported in this way is actionable or not, it should be photographed and measurements taken.

Any Category 1 defect (requiring making safe or repair within 24 hours) identified whilst in transit between two points and not on a current inspection route is also required to be recorded through the issuing of a works order and the appropriate action taken.

Any safety inspection carried out beyond the due date must have the reasons for the delay recorded.

## 2.3 – Observation Assessments

As part of and concurrent with the Highway Safety Inspection process all sections of carriageway, cycleway and footway are assessed for overall general condition. This information is used to aid the Asset Management Team in the targeted delivery of future planned maintenance schemes.


Observational assessments shall be based on the average condition of the full section length. This information will be recorded using the following notation:


### Example Carriageway Condition:

Typical Condition	Notation: <b>As New</b>
	
<p>Definition: New condition free from repairs or patching</p>	

Typical Condition	Notation: <b>Aesthetically Impaired</b>
	
<p>Definition: Sound carriageways with patching, some discolouration and / or minor fretting of surface</p>	

**Example Carriageway Condition (continued):**

Typical Condition	Notation: <b>Functionally Impaired</b>
	
<p>Definition: Minor surface deterioration / fretting / fatting. Minor cracking of surface and / or uneven surface</p>	


Typical Condition	Notation: <b>Structurally Unsound</b>
	
<p>Definition: Major fretting and potholing. Major cracking, Poor shape, severe settlement/subsidence creating a significant difference in level</p>	


**Example Footway Condition:**

Typical Condition	Notation: <b>As New</b>
	
<p>Definition: New condition free from repairs or patching</p>	

Typical Condition	Notation: <b>Aesthetically Impaired</b>
	
<p>Definition: Sound footways with patching, Modular footways with sound bituminous patches, Modular footways with elements of different colour/age/material, Faded bituminous materials (especially coloured bituminous). Graffiti / Spray paint</p>	

**Example Footway Condition (continued):**

Typical Condition	Notation: <b>Functionally Impaired</b>
	
<p>Definition: Cracked but level flags/blocks, Missing Filler, Minor surface deterioration / fretting / fattening, Including the appearance of moss. Minor cracking, minor scaling and moderate local settlement / subsidence</p>	

Typical Condition	Notation: <b>Structurally Unsound</b>
	
<p>Definition: Cracked and depressed / missing flags or blocks. Major fretting and potholing. Major cracking, Poor shape, severe settlement/subsidence creating a significant difference in level</p>	

## **2.4 – General Duty to Maintain**

Notwithstanding the defect categories contained in this document, the Highways Officer may refer any perceived defect in the highway which could present a significant risk to safe passage to the highway user.

Referral in this instance is to their line manager for consideration and action, if required; however, if the defect requires immediate or urgent action then the Highways Officer should deal with the hazard and advise the line manager retrospectively. Any defect being considered by reason of the above should be photographed and measurements recorded.

## 2.5 – New Roads and Street Works Act 1991 (NRSWA)

Concurrent with a Highway Safety Inspection, any item of statutory undertaker apparatus or any utility reinstatement under guarantee, which the Highways Officer considers defective in accordance with the guidance in this manual, will be recorded and reported to the appropriate Utility Company.

If the utility apparatus / reinstatement is found to be outside its tolerances (as specified in the NRSWA: Street Works (Reinstatement) Regulations) due to settlement, plucking out, heave or other reasons, and it exceeds the category 1 criteria, any costs incurred in making safe, and/or repair, must be recovered from the undertaker. Notice will normally be served on the undertaker to respond to a category 1 defect within 2 hours; however, if such a response is not forthcoming then the highway authority will respond and recover its costs. All costs must be charged in accordance with the Street Works (Recovery of Costs) (England) Regulations 2002.

Other defects associated with statutory undertaker apparatus/ reinstatements (ie outside the tolerances of Street Works (Reinstatement) Regulations 1992 but not a category 1 safety defect) may still require reporting to the appropriate Utility Company by serving of a notice under section 81 of the New Roads and Street Works Act 1991 and in line with the Department for Transport's Code of Practice for Street Works Inspections.



## 2.6 – Performance Management

Safety Inspections will be subject to regular audit as follows:

Measure	Performance	Frequency of Review	Method	Responsibility
Ensure all routes are completed	100% Compliance	Annual	Insight Report	Maintenance Manager
Ensure routes are completed on time	98% Compliance	Annual	Insight Report	Maintenance Manager
Inspection accuracy / quality	95% Compliance	6 Monthly	Random Inspection (1)	Maintenance Manager
Cross Area consistency	90% Compliance	Annual	Random Inspection (2)	Maintenance Manager from adjoining area

### Random Inspection (1)

Carried out at six monthly intervals during April and October

Maintenance Manager to carry out one walked and one driven Inspection, (determined at random by the Maintenance Manager) with each Highways Officer in their own geographic area. Results to be compared against those previously recorded in Insight by the Highways Officer.

An audit will be carried out by the relevant Maintenance Manager towards the end of probationary periods for new Highway Officers. This will ensure the accuracy and quality of inspections and works orders.

### Random Inspection (2)

Carried out annually during September

Maintenance Manager A to carry out one walked and one driven Inspection (determined at random by Maintenance Manager A) with Maintenance Manager B in Maintenance Manager B's geographic area. Results to be recorded and compared against those previously recorded in Insight. Feedback to be delivered to Highways Officers by Maintenance Manager B.

Maintenance Manager A	Maintenance Manager B
Area 5	Area 1
Area 1	Area 2
Area 2	Area 3
Area 3	Area 4
Area 4	Area 7
Area 7	Area 6
Area 6	Area 5

## 3 – Methodology

Safety Inspections are intended to identify those defects, which are likely to create a danger to users of the highway network. Such defects will include those that require urgent attention (within 2 hours of the defect being identified by the Highways Officer) as well as those where a longer response period would be acceptable.

The following parameters have been used to specify the safety inspection regime:

1. Frequency of Inspection
2. Items for Inspection
3. Priority Response Times
4. Risk Assessment

### 3.1 Frequency of Inspection

The following frequencies for safety inspections are based upon network hierarchies as outlined in “Well-maintained Highways” and documented in the Highway Maintenance Plan, which also takes into account the following considerations:

- Network hierarchy
- Traffic use, characteristics and trends
- Incident and inspection history
- Characteristics of adjoining network elements
- Local knowledge / expertise

## CARRIAGEWAY HIERARCHY FREQUENCY OF INSPECTION

Hierarchy Category	Hierarchy Description	Type of Road	Detailed Description	Frequency and Tolerance**
1	Motorway	Not applicable	Not applicable	Not applicable
2	Strategic Route	Trunk and some Principal "A" roads between Primary Destinations	Routes for fast moving long distance traffic with little frontage access or pedestrian traffic. Speed limits are usually in excess of 40mph and there are few junctions. Pedestrian crossings are either segregated or controlled and parked vehicles are generally prohibited.	1 month +0 / -1 week
3a	Main Distributor	Major Urban Network and Inter-Primary Links. Short-medium distance Traffic	Routes between Strategic Routes and linking towns to the strategic network with limited frontage access. In urban areas speed limits are usually 40mph or less, parking is restricted at peak times and there are positive measures for pedestrian safety.	1 month +0 /-1 week
3b	Secondary Distributor	B and some C class roads. Some unclassified urban bus routes carrying local traffic with frontage access and frequent junctions	In rural areas these roads link the larger villages and industrial sites to the Strategic and Main Distributor Network. In built up areas these roads have 30mph speed limits and very high levels of pedestrian activity with some crossing facilities. On street parking is generally unrestricted.	1 month +0 /-1 week
4a	Link Road	Roads linking between the Main and Secondary Distributor Network	In rural areas these roads link the smaller villages to the distributor roads. In urban areas they are residential or industrial or inter-connecting roads with 30mph speed limits random pedestrian movements and uncontrolled parking.	3 months +0 /-2 weeks
4b	Local Access Road	Roads serving limited numbers of properties carrying only access traffic	In rural areas these roads serve small settlements and provide access to individual properties and land. They are sometimes only single lane width and unsuitable for HGV. In urban areas they are often residential loop roads or culs-de-sac.	12 months +0 /-4 weeks
5	Back Street	Roads serving limited numbers of properties	Only applicable to urban areas, will typically be the rear access road to terraced properties	12 months +0 /-4 weeks
6	Unsurfaced Unclassified Road (UUR)	Roads serving limited numbers of properties	Only applicable in rural locations includes those roads locally known as 'Green Lanes' or 'County Roads'.	*

\* Intervention levels in this document do not apply to Category 6 roads. Category 6 roads are managed reactively, no inspections are scheduled; however, upon receiving a customer report the Countryside Access Teams UUR Officer will inspect the site, report the condition and arrange repair where necessary.

\*\*The monthly inspections can be undertaken up to 1 week after the due date as long as no more than five weeks have elapsed since the last inspection. This can only occur for legitimate operational reasons and is limited to no more than two occurrences in any given year. Note: A late inspection will be reported on the system hence separate records need to be kept of any occurrences and the reason they occurred.

## FOOTWAY HIERARCHY FREQUENCY OF INSPECTION

Hierarchy Category	Hierarchy Description	Description	Frequency and Tolerance
1a	Prestige Pedestrian Zone	Pedestrianised areas	1 month +0 /-1 week
1	Primary Pedestrian Route	Busy town centre shopping and business areas, and main pedestrian routes linking transport interchanges to the town centre.	1 month +0 /-1 week
2	Secondary Pedestrian Route	High usage routes connecting a number of residential areas and providing access to the primary routes, shopping centres, large schools, leisure complexes and industrial centres.	3 months +0 /-2 weeks
3	Link Footway	High/Medium usage routes providing a link for a residential area to the primary and secondary walking routes.	6 months +0 /-3 weeks
4	Local Access Footway Urban	Urban low usage footways, usually on housing estates.	12 months +0 /-4 weeks
5	Local Access Footway Rural	Low usage rural footway usually between villages sometimes unsurfaced	12 months +0 /-4 weeks

## CYCLEWAY HIERARCHY FREQUENCY OF INSPECTION

Hierarchy Category	Description	Frequency and Tolerance
A	Cycle lane forming part of the carriageway, commonly 1.5metre strip adjacent to the nearside kerb. Cycle gaps at road closure points with exemptions for cycle access.	As for Road
B	Cycle Way, a surfaced route not contiguous with the carriageway. Shared cycle/pedestrian paths, either segregated by a white line or other physical segregation. Unsegregated Footway/Cycleways are inspected as Footways.	As per footway for unsegregated shared, otherwise 12 months +0 /-4 weeks
C	Cycle trails, leisure routes through open spaces, often unsurfaced. (Where forming part of the highway maintainable at public expense)	12 months +0 /-4 weeks

Where carriageway and footway hierarchies intersect, for example at pelican or zebra crossings, or other defined crossing points at junctions, the hierarchy of the route with the most frequent inspection category will always take precedence in determining defect definition and responses. This principle will also apply to intersections between carriageways and cycle routes and between cycle routes and footways.

Where National cycle network routes (NCN) are on carriageway or part of a shared cycle/pedestrian path they shall be inspected at the same frequencies as the corresponding carriageway/footway hierarchy; however, cycleway intervention tolerances should be applied to these routes.

## 3.2 Items for Inspection

This is a visual safety inspection only, and does not for example include items such as electrical safety or testing.

All of the components which make up the Highway Asset are to be inspected, including, but not exhaustively:

Carriageways	Central Island Central Reservation Carriageway Hard Shoulder Crossover (central reserve) Kerbs, (including Granite sett kerbs) Channels and Edging Verge Lay by Cycle Lanes	Signs, Bollards	Signs Bollards Illuminated Signs Pedestrian Crossing Lights Lighting Columns Wall Mounted Street Lights All other lighting units
Footways and Cycleways	Footway Paved Footpath Cycleways Kerbs, Channels and Edging Verge	Traffic Signals	Traffic Signals Traffic Signal installation Traffic Signal furniture
Ironwork	Inspection Chambers Catchpit and Gullies Kerb Outlets Utilities Covers and Frames Cattle Grids	Safety Fencing and Barriers	Fences and Barriers Pedestrian Guard Rail Safety Fencing Boundary Walls and fences
Drainage	Culvert Highway Ditch Filter Drain Grip Gullies Grids Pipes grip / Kerb outlet	Street Furniture	All items of street furniture e.g Bus Shelters
Road Markings	Stop Lines Give Way Lines Double white line systems Other Road Markings High Friction Coating	Hedges and Trees	Hedges Trees and shrubs Other Vegetation
Road Studs	Non-Reflective Road Studs (e.g zebras and pelican crossings) Depressible reflective road stud Non-Depressible reflective road stud	Scavenging	The full extent of Highway including; Hazardous litter Sharp objects Broken glass etc

### 3.3 Priority Response Times\*

The degree of observed deficiency or defect and consequent nature of response are dealt with through the risk assessment procedure section 3.4.

The priority of response times relevant to the particular categories of defect as assessed by the likely impact and probability of the risk are as follows:

Category 1	Priority 1	Make safe or repair within 2 hours
	Priority 2	Make safe or repair within 24 hours

**Category 1 Defect.** These are defects which due to their nature & location represent an immediate or imminent hazard and / or very serious risk to the public.

Category 1 defects are to be classified as Priority 1 or Priority 2 and are therefore either to be made safe or repaired within 2 hours or 24 hours respectively of the defect being identified, subject to risk assessment.

For all category 1 defects the repair crews are to be called as soon as the defect is identified by the Highways Officer to enable repairs or making safe within the above time frames.

**Examples of Priority 1 Defects** are fallen trees obstructing the carriageway, missing inspection chamber covers, potholes greater than 100mm in depth on categories 2, and 3a roads, or any event which the Highways Officer deems it too dangerous to leave site before the repair is carried out or it has been made safe.

**Examples of Priority 2 Defects** are unstable tree at risk of falling into highway, potholes greater than 40mm but less than 100mm in depth on a category 3a road or any event which the Highways Officer deems it too dangerous to leave unresolved for more than 24 hours.

**All Priority 1 Defects** that are encountered shall, if reasonably practicable, be corrected, temporarily made safe or otherwise protected by the Highways Officer and reported to the base office at the earliest opportunity with a request to the appropriate Contractor to be securely made safe or repaired within the response times specified within the Highways Maintenance Contract (ie 1 hour during working hours; 1.5 hours outside working hours) in order to achieve compliance with action being taken within 2 hours from the time of inspection.

**All Priority 2 Defects** that are encountered shall if reasonably practicable be securely made safe or repaired within 24 hours.

When a category 1 defect is identified within a larger area, only that part of the area which meets the criteria for category 1 defects shall be treated as a category 1 defect with the remainder being treated as a category 2 defect, except where this is impractical to do so. Some category 1 defect repairs may be due to the activities of the utility companies, which are governed by the requirements of NRSWA. In this case, if the utility apparatus/reinstatement is outside its specified tolerances due to settlement, plucking out or other reasons, and within category 1 criteria, any costs incurred in making safe, and or repair, must be recovered from the undertaker. All costs must be charged in accordance with the Street Works (Recovery of Costs) (England) Regulations 2002.

\*Defect categories and priority response times supersede those referred to in the North Yorkshire Council Highway Maintenance Plan April 2006.

<b>Category 2</b>	<b>Priority 3</b>	<b>Make safe or repair within 1 week</b>
	<b>Priority 4</b>	<b>Make safe or repair within 1 month</b>
	<b>Priority 5</b>	<b>Make safe or repair within 3 months</b>

**Category 2 Defect:** Defects other than those designated Category 1 which have reached the minimum intervention levels tabulated in section 4 of this manual.

Category 2 defects are those defects which, following a risk assessment, are deemed not to represent an immediate danger or serious inconvenience to the public or which are not likely to result in significant damage to property.

Such defects may have safety implications, although of a far lesser significance than category 1 defects but are more likely to have serviceability or sustainability implications.

These defects are those for which repairs required shall be undertaken within a planned programme of works within 1 week to 3 months depending on the priority i.e priority 3, 4 or 5 as determined by risk assessment.

The appropriate action to be taken will be determined by the Highways Officer at the time of inspection following guidance contained in section 3.4 Risk Assessment.

### 3.4 Risk Assessments.

Risks applicable to highway inspections include both the items to be inspected (as previously described in Section 3.2) and the risks inherent to the personnel in undertaking the inspections.

**3.4.1 In regard to the risks inherent to the operatives in undertaking the inspections** Risk assessments can be found on the Environmental Services area of the main NYC intranet site under risk management, health & safety, Environment health & safety documents site.

**3.4.2 In regard to the items to be inspected**, any item with a defect level which corresponds to, or is in excess of, the parameters for defects and intervention levels stated in section 4 will be subjected to risk assessment in line with the risk matrix herein.

The procedure for risk assessment is as follows:

- **Risk Identification**

An inspection item for which the defect intervention level is reached or exceeded is to be identified as a risk. The entire inventory to be observed and the appropriate intervention levels are detailed in Section 4.

- **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.

- **Risk impact**

The impact of a risk occurring will be quantified on a scale of 1 to 5 as follows:

1	Little or negligible impact
2	Minor or low impact
3	Noticeable impact
4	Major, high or serious impact
5	Extremely high or dangerous impact

For example, a 40mm pothole along the centre line of a carriageway subject to a speed restriction of 30mph may have little impact whereas a 40mm pothole in the cycleway at the near edge of the carriageway could have a major impact.

- **Risk Probability**

The probability of a risk occurring will also be quantified on a scale of 1 to 5 assessed as follows:

1	Very low probability (up to 20%)
2	Low probability (21% - 40%)
3	Medium probability (41% - 60%)
4	High probability (61% - 80%)
5	Very high probability (over 80%)

The probability of a risk occurring will also be quantified by assessing how many users are likely to pass by or over the defect and consequently the network hierarchy and defect location are important considerations in the assessment.

For example, considering the previous scenario, the risk probability in the cycle lane of the carriageway where there are numerous cyclists is likely to be higher whereas the probability along the centre line may only be medium as the traffic density should be lower.



• **Risk Factor**

The risk factor for a particular risk is the product of the risk impact and risk probability and is therefore in the range of 1 to 25. It is this factor that identifies the overall seriousness of the risk and consequently therefore the appropriateness of the speed of response to remedy the defect. Accordingly, the priority response time for dealing with a defect can be determined by correlation with the risk factor as shown in the risk matrix below.

• **Risk Matrix**

Having identified a particular risk, assessed its likely impact and probability and calculated the risk factor, the risk assessment procedure can be shown in the form of a risk matrix as follows:

The colour shading in the matrix identifies the priority response and

Probability Impact	Very low (1)	Low (2)	Medium (3)	High (4)	Very High (5)
Negligible (1)	1	2	3	4	5
Low (2)	2	4	6	8	10
Noticeable (3)	3	6	9	12	15
High (4)	4	8	12	16	20
Extreme (5)	5	10	15	20	25

accordingly, the defect category, risk factor and priority response can be tabulated in a simple formal as follows:

Defect Category	Risk Factor	Priority Response	Repair Time
1	25	Priority 1 response	2 hours
	15 - 20	Priority 2 response	24 hours
2	10 - 12	Priority 3 response	1 week
	5 - 9	Priority 4 response	1 month
	1 - 4	Priority 5 response	3 months

This Manual is a guide assist the Highways Officer in undertaking a risk assessment of the defect. It provides a framework which links intervention levels to response times and covers a number of examples which act as a starting point in the decision-making process. Highways Officers are expected to use their judgement to assess the risks that apply to the particular on-site circumstances and use their expertise to select the most suitable priority for repair. As a result, there will be circumstances where the priority assigned is different to that given in the worked examples in the Manual. Examples of this could include footways around elderly person's homes, doctors' surgeries, day care centres, schools, nurseries, hospitals, post offices etc, which would increase the overall risk factor. The reasons for this decision should be recorded at the time of the inspection.

## 4 – Risk Register encompassing Parameters of Defects, Intervention levels and Risk Matrix Application

Example	Defect	Minimum Intervention Level subject to risk assessment	Page
	<b>1. Carriageways</b>		
1.1	Potholes / Spalling or other abrupt level difference	40mm depth	26
1.2	Depression / Crowning /Heave or Subsidence/ Rutting	50mm depth	27
	<b>2. Footways and pedestrian light controlled and other designated Pedestrian Crossing points</b>		
2.1	trip/ pothole or other abrupt level difference in metalled surface	20mm depth	28
2.2	trip/ pothole or other abrupt level difference in un metalled surface	50mm depth	29
2.3	Depression / Crowning / Heave or Subsidence / Rutting	50mm depth	30
2.4	Open joint	40mm wide x 20mm deep	31
2.5	Rocking slab/ block	15mm displaced face	32
2.6	Tree root damage	20mm depth	33
	<b>3. Kerbs not forming part of the footway</b>		
3.1	Misaligned horizontally	40mm horizontally	34
3.2	Loose / rocking / misaligned vertically	40mm displaced face	35
3.3	Missing	Yes	36
	<b>4. Kerbs contiguous with footway</b>		
4.1	Misaligned horizontally	20mm horizontally	37
4.2	Loose / rocking / misaligned vertically	20mm displaced face	38
4.3	Missing	Yes	39
4.4	Open joint or Gap	80mm	40
	<b>5. Cycle lanes/ ways</b>		
5.1	Pothole, trench or other abrupt level difference in metalled surface	20mm depth	41
5.2	Pothole, trench or other abrupt level difference in un metalled surface	50mm depth	42

	<b>6. Verges in urban areas</b>		
6.1	Sunken area adjacent to and running parallel with carriageway edge	200mm depth	43
6.2	Sunken area adjacent to and running parallel with footway	100mm depth	44
	<b>7. Verges in rural areas</b>		
7.1	Sunken area adjacent to and running parallel with carriageway edge	200mm depth	45
7.2	Sunken area adjacent to and running parallel with footway	150mm depth	46
	<b>8. Ironworks in the carriageway</b>		
8.1	Level difference within framework also sunken or protruding	40mm depth	47
8.2	Rocking covers	30mm displaced face	48
8.3	Cracked / Broken and missing covers	Yes	49
8.4	Worn / polished covers	Yes	50
	<b>9. Ironworks in the footway</b>		
9.1	Level difference within framework also sunken or protruding	20mm depth	51
9.2	Rocking covers	15mm displaced face	52
9.3	Cracked / Broken and missing covers	Yes	53
9.4	Worn / polished covers	Yes	54
	<b>10. Ironworks in the verge Urban and Rural</b>		
10.1	Cracked / Broken and missing covers	Yes	55
	<b>11. Drainage</b>		
11.1	Substantial running water across carriageway	Yes	56
11.2	Substantial running water across footway	Yes	57
11.3	Substantial standing water at edge of carriageway	Yes	58
11.4	Blocked gully or drainage grip	Yes	59
	<b>12. Road Markings and High Friction Coatings</b>		
12.1	Faded or worn	30% loss	60
	<b>13. Reflective Road Studs</b>		
13.1	Missing or defective reflector	Yes	61
13.2	Displaced item on carriageway	Yes	62
	<b>14. Road Restraint System / Pedestrian Barrier / Boundary Walls and Fences</b>		
14.1	Accident damaged or missing	Yes	63

<b>15. Signs / Bollards / Marker Posts / lights and traffic signals</b>			
15.1	Damaged / misaligned item causing a hazard	Yes	64
15.2	Missing item causing a hazard	Yes	65
15.3	Sign / Bollard illumination failure (not including street lighting)	Yes	66
15.4	Signals not operating correctly / failure (not including street lighting)	Yes	67
15.5	Street lighting columns, Illuminated signs, Beacon and Zebra poles damaged	Yes	68
15.6	Obscured by trees / hedges	Yes	69
15.7	Dirty / faded	Yes	70

<b>16. Hedges and Trees</b>			
16.1	Unstable tree at risk of collapsing into highway	Yes	71
16.2	Broken and hanging branches	Yes	72
16.3	Reduction of clearance over carriageway	Yes	73
16.3	Reduction of clearance over footway or cycleway	Yes	74

<b>17. Cattle Grids</b>			
17.1	Longitudinal gaps and missing rails	15mm width and Yes	75

<b>18. Highway General</b>			
18.1	Oil / debris / mud on highway	Yes	76
18.2	Obstructions in the highway	Yes	77
18.3	Scaffolding presenting a hazard	Yes	78
18.4	Skips / building materials presenting a hazard	Yes	79

<b>19. Other dangers to the public</b>			
19.1	Anything else considered potentially dangerous	Yes	80

The following should also be considered by the Inspector when deciding on the prioritisation of a defect or deficiency and the level of response required.

- The depth, surface area, or other extent of the defect.
- 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 and wheel tracks.
- The nature and extent of interaction with other defects.
- Weather conditions, especially for freezing of surface water.

Example	Defect	
1.1	Carriageways	Potholes / spalling or other abrupt level difference

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
Greater than 200mm deep and 150mm wide in all directions	All	5	5	25	1
	2	5	5	25	1
Between 100 and 200mm deep and 150mm wide in all directions	3a Urban	5	5	25	1
	3a Rural	5	5	25	1
	3b Urban	4	4	16	2
	3b Rural	4	4	16	2
	4a Urban	3	4	12	3
	4a Rural	3	4	12	3
	4b Urban	3	4	12	3
	4b Rural	3	4	12	3
	5	3	4	12	3
	Between 40 and 100mm deep and 150mm wide in all directions	2	5	5	25
3a Urban		4	4	16	2
3a Rural		4	4	16	2
3b Urban		3	4	12	3
3b Rural		3	4	12	3
4a Urban		3	3	9	4
4a Rural		3	2	6	4
4b Urban		3	3	9	4
4b Rural		3	2	6	4
5		3	1	3	5

Comments
<p>Once a depth of 40mm is reached action is required for repair.</p> <p>Potholes are a potential hazard to all road users, not just motorists and any assessment must also consider cyclists and motorcyclists.</p> <p>At formalised / designated pedestrian crossing points the carriageway becomes an extension of the footway, therefore footway intervention levels must prevail at these locations.</p> <p>This defect can also occur in block paved, stone sett surfaces and the like.</p> <p>Category 5 carriageways are subject to carriageway intervention levels unless they are formally designated as a pedestrian through route, in which case footway intervention levels will apply. Back streets constructed using setts will only be subject to carriageway intervention levels on account of small level differences already being part of their original construction.</p> <p>On defined cyclist routes, narrower defects meeting the depth requirements should be considered for repair if the defect is more than 75mm wide and 300mm long in the direction of travel with a sloping exit face or 150mm long for an abrupt exit face.</p> <p>The defect dimensions specified above refer to those parts of the defect which exceed the intervention depth.</p>

Examples



Pothole in carriageway

Example	Defect	
1.2	Carriageways	Depression or Crowning Heave or Subsidence or Rutting

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Greater than 200mm deep and up to 3000mm wide	All	5	5	25	1
Between 100 and 150mm deep up to 1000mm wide or between 150 and 200 deep up to 2000mm wide	2	5	5	25	1
	3a Urban	5	5	25	1
	3a Rural	5	5	25	1
	3b Urban	4	4	16	2
	3b Rural	4	4	16	2
	4a Urban	3	4	12	3
	4a Rural	3	4	12	3
	4b Urban	3	4	12	3
	4b Rural	3	4	12	3
	5	3	4	12	3
Between 50 and 100mm deep up to 1000mm wide or between 100 and 150 deep up to 2000mm wide	2	5	5	25	1
	3a Urban	4	4	16	2
	3a Rural	4	4	16	2
	3b Urban	3	4	12	3
	3b Rural	3	4	12	3
	4a Urban	3	3	9	4
	4a Rural	3	2	6	4
	4b Urban	3	3	9	4
	4b Rural	3	2	6	4
	5	3	1	3	5

Comments
<p>Depression, Crowning, Heave, Subsidence and Rutting if severe can be considered as dangerous as a pothole although not displaying abrupt level difference the minimum intervention will be 50mm depth.</p> <p>Where an abrupt level difference occurs within an area it shall be measured against the criteria for a pothole.</p> <p>Excessive Heave or Subsidence should in addition to the Priority Response tabulated above be reported to the Highways Officers Line Manager and investigated appropriately.</p> <p>This defect can also occur in block paved, stone sett surfaces and the like</p>

Examples



Depression in centre of road



Depression and heave along edge of road

Example	Defect	
2.1	Footways and pedestrian light controlled and other designated Pedestrian Crossing points	Trip Pothole or other abrupt level difference in metalled surface

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 40mm deep and over 100mm wide in all directions	All	5	5	25	1
Between 20 and 40mm deep and over 100mm wide in all directions	1a, 1, 2	4	5	20	2
	3, 4	4	3	12	3
	5	4	2	8	4

Comments
<p>Once a depth of 20mm is reached action is required for repair</p> <p>This defect can also occur in block paved, stone sett surfaces and the like.</p> <p>Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road, such as tactile crossings and dropped footway kerbs.</p>

Examples



Potholes in pedestrian crossing of side road



Pothole in footway exposing unbound material

Example	Defect	
2.2	Footways and pedestrian light controlled and other designated Pedestrian Crossing points	Trip Pothole or other abrupt level difference in un-metalled surface

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 100mm deep and over 100mm wide in all directions	All	5	5	25	1
Between 50 and 100mm deep and over 100mm wide in all directions	1a, 1, 2	4	5	20	2
	3, 4	4	3	12	3
	5	4	2	8	4

Comments
<p>These are usually little used rural footways.</p> <p>Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road, such as tactile crossings and dropped footway kerbs</p>



Example	Defect	
2.3	Footways and pedestrian light controlled and other designated Pedestrian Crossing points	Depression, Crowning, Heave, Subsidence or Rutting

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 100mm deep and up to 2000mm wide	All	5	5	25	1
Between 50 and 100mm deep and up to 1000mm wide	1a, 1, 2	4	5	20	2
	3, 4	4	3	12	3
	5	4	2	8	4

Comments
<p>Depression, Crowning, Heave, Subsidence and Rutting if severe can be considered as dangerous as a pothole although not displaying abrupt level difference the minimum intervention will be 50mm depth</p> <p>Where an abrupt level difference occurs within an area it shall be measured against the criteria for a pothole</p> <p>Excessive Heave or Subsidence should in addition to the Priority Response tabulated above be reported to the Highways Officers Line Manager and investigated appropriately.</p> <p>This defect can also occur in block paved, stone sett surfaces and the like.</p> <p>Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road, such as tactile crossings and dropped footway kerbs.</p>

Examples



Subsidence in footway

Example	Defect	
2.4	Footways and pedestrian light controlled and other designated Pedestrian Crossing points	Open Joint deeper than 20mm

Extent	Category Footway	Impact	Probability	Risk Factor	Priority Response
Greater than 100mm wide	All	5	5	25	1
Between 40 and 100mm wide	1a, 1, 2	4	3	12	3
	3, 4	4	2	8	4
	5	4	1	4	5

Comments
<p>For example, an open joint between two adjacent paving stones should be considered to pose the same risk as an open joint between an item of surface iron work and the surrounding surface.</p> <p>Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road, such as tactile crossings and dropped footway kerbs.</p>

Examples



Open joint between paving stones

Example	Defect	
2.5	Footways and pedestrian light controlled and other designated Pedestrian Crossing points	Rocking slab / block

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 40mm displaced face	All	5	5	25	1
Between 15 and 40mm displaced face	1a, 1, 2	4	5	20	2
	3, 4	4	2	8	4
	5	4	1	4	5

Comments
<p>A rocking or unstable slab will be classed as a defect when the vertical displaced face is 15mm or greater, this is a lesser value than that for a fixed abrupt level difference due to the increased risk associated with the potential movement of a rocking slab.</p> <p>Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road.</p>

Examples



Loose paving stones

Example	Defect	
2.6	Footways and pedestrian light controlled and other designated Pedestrian Crossing points	Tree root damage

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 100mm level difference	1a, 1, 2	4	4	16	2
	3, 4, 5	4	2	8	4
Between 20 and 100mm level difference	1a, 1, 2	4	3	12	3
	3, 4, 5	4	1	4	5

Comments
<p>This defect is similar to any other abrupt level difference.</p> <p>Designated Pedestrian Crossing points include locations where there is a clear intention that pedestrians should cross the road, such as tactile crossings and dropped footway kerbs.</p>

Examples



Tree route damage to footway



Tree route damage to footway

Example	Defect	
3.1	Kerbs not forming part of the footway	Misaligned horizontally

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
Greater than 100mm into carriageway	All	4	3	12	3
Between 40mm and 100mm into carriageway	2	3	2	6	4
	3a Urban	3	2	6	4
	3a Rural	3	2	6	4
	3b Urban	3	2	6	4
	3b Rural	2	2	4	5
	4a Urban	2	2	4	5
	4a Rural	2	2	4	5
	4b Urban	2	2	4	5
	4b Rural	2	2	4	5
	5	2	2	4	5
Greater than 100mm away from carriageway	All	2	3	6	4
Between 40mm and 100mm away from carriageway	All	5	5	4	5

Comments
<p>If misaligned by more than 40mm then they will be classified as safety defects.</p> <p>Where there is no footway area immediately adjacent to the kerb then the intervention level can be relaxed.</p> <p>Missing granite setts in rural areas where no adjacent footway is present should only need a 3 month response time.</p>

Examples



Kerb misaligned horizontally away from carriageway

Example	Defect	
3.2	Kerbs not forming part of the footway	Loose / rocking / misaligned vertically

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Greater than 100mm displaced face				
Between 40mm and 100mm displaced face	2	3	3	9	4
	3a Urban	3	3	9	4
	3a Rural	3	3	9	4
	3b Urban	3	3	9	4
	3b Rural	2	2	4	5
	4a Urban	2	2	4	5
	4a Rural	2	2	4	5
	4b Urban	2	2	4	5
	4b Rural	2	2	4	5
	5	2	1	4	5

Comments
<p>Even where no footway is present there may for example be horse traffic or pedestrians walking in the verge to avoid traffic, therefore any vertical misalignment greater than 40mm will be regarded as a safety defect.</p> <p>Where there is no footway area immediately adjacent to the kerb then the intervention level can be relaxed.</p> <p>Missing granite setts in rural areas where no adjacent footway is present should only need a 3 month response time.</p>

Example	Defect	
3.3	Kerbs not forming part of the footway	Missing

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Yes	2	3	3	9	4
	3a Urban	3	3	9	4
	3a Rural	3	3	9	4
	3b Urban	3	3	9	4
	3b Rural	2	2	4	5
	4a Urban	2	2	4	5
	4a Rural	2	2	4	5
	4b Urban	2	2	4	5
	4b Rural	2	2	4	5
	5	2	2	4	5

Comments
<p>Even where no footway is present there may for example be horse traffic or pedestrians walking in the verge to avoid traffic. Also the abrupt end of the kerb beyond the missing one could be struck by a passing vehicle.</p> <p>Where there is no footway area immediately adjacent to the kerb then the intervention level can be relaxed.</p> <p>Missing granite setts in rural areas where no adjacent footway is present should only need a 3 month response time.</p>

Example	Defect	
4.1	Kerbs contiguous with footway	Misaligned horizontally

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 50mm	All	4	5	20	2
Between 20mm and 50mm	1a, 1, 2	4	3	12	3
	3, 4, 5	4	1	4	5

Comments
For a person stepping on or off the footway this defect can cause a tripping or stumbling incident.

Examples



Kerb misaligned horizontally

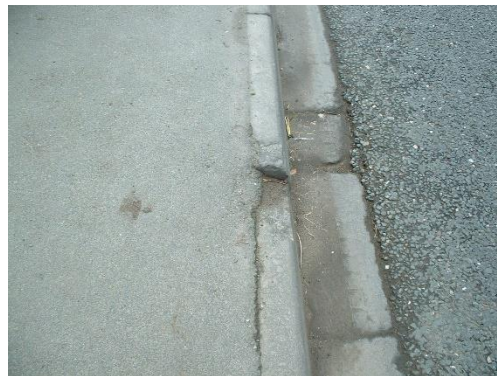


Example	Defect	
4.2	Kerbs contiguous with footway	Loose / rocking / misaligned vertically

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 40mm displaced face	All	4	5	20	2
Between 20mm and 40mm displaced face	1a, 1, 2	4	3	12	3
	3, 4, 5	4	1	4	5

Comments
This is a similar defect to a rocking slab but not being in the main area of footfall will be classified as a safety defect when the displaced face is 20mm or greater.

Examples



Kerb misaligned vertically

Example	Defect	
4.3	Kerbs contiguous with footway	Missing

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Yes	1a, 1, 2	5	4	20	2
	3, 4, 5	4	2	8	4

Comments
<p>This defect can potentially be the causation of a tripping incident. The existence of a missing kerb within a continuous length of kerbs would be classified as a safety defect.</p>

Examples



Missing kerb

Example	Defect	
4.4	Kerbs contiguous with footway	Open joint or gap

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 150mm	All	5	4	20	2
Between 80 and 150mm	1a, 1, 2	4	3	12	3
	3, 4, 5	4	2	8	4

Comments
<p>With no difference in vertical height and only of a narrow width, and not in the main area of foot fall of a footway the open joint between two adjacent kerbs will only be considered a safety defect if the gap is greater than 80mm.</p> <p>The measurement of the gap would also include any spalling or other damage to either kerb.</p>

Examples



Gap between kerbs

Example	Defect	
5.1	Cycle lanes / ways	Pothole, trench or other abrupt level difference in metalled surface

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Greater than 100mm deep	All	5	5	25	1
Between 50 and 100mm deep	All	5	4	20	2
Between 20 and 50mm deep	All	4	3	12	3

Comments
<p>Once a depth of 20mm is reached or has an exposed unbound foundation action is required for repair.</p> <p>On defined cyclist routes, defined cyclist routes, narrower defects meeting the depth requirements should be considered for repair if the defect is more than 75mm wide and 300mm long in the direction of travel with a sloping exit face or 150mm long for an abrupt exit face. These defect dimensions refer to the parts of the defect which exceed the intervention depth.</p>

Examples



Potholes



Potholes

Example	Defect	
5.2	Cycle lanes / ways	Pothole, trench or other abrupt level difference in unmetalled surface

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Greater than 200mm deep	All	4	5	20	2
Between 100 and 200mm deep	All	3	3	9	4

Comments
In an unmetalled surface any level difference will be less abrupt than in an equivalent metalled surface and consequently the extents of any defect can be greater before presenting a similar level of inconvenience to the user.

Example	Defect	
6.1	Verges in Urban areas	Sunken area adjacent to and running parallel with carriageway edge

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Greater than 300mm deep	All	4	5	20	2
Between 200mm and 300mm deep	2	4	3	12	3
	3a Urban	4	3	12	3
	3a Rural	3	3	9	4
	3b Urban	3	3	9	4
	3b Rural	3	1	3	5
	4a Urban	3	1	3	5
	4a Rural	3	1	3	5
	4b Urban	3	1	3	5
	4b Rural	3	1	3	5
	5	3	1	3	5

Comments
<p>This relates to the verge within 300mm of the edge of the surfaced carriageway. Any detriment to the verge beyond 300mm from the edge of the surfaced carriageway will be assessed at the Highways Officers discretion with due regard to the safety of the highway user.</p> <p>A purposely excavated channel in the verge for the purpose of highway drainage is not to be considered as part of this defect.</p>

Examples



Damaged verge

Example	Defect	
6.2	Verges in Urban areas	Sunken area adjacent to and running parallel with footway

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 200mm deep	All	4	5	20	2
Between 100 and 200mm deep	All	3	3	9	4

Comments
<p>This relates to the verge within 300mm of the edge of the surfaced footway. Any detriment to the verge beyond 300mm from the edge of the surfaced footway will be assessed at the Highways Officers discretion with due regard to the safety of the highway user.</p> <p>A purposely excavated channel in the verge for the purpose of highway drainage is not to be considered as part of this defect.</p>

Examples



Damaged verge

Example	Defect	
7.1	Verges in Rural areas	Sunken area adjacent to and running parallel with carriageway edge

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Greater than 300mm deep	All	5	4	20	2
Between 200mm and 300mm deep	2	4	3	12	3
	3a Urban	4	3	12	3
	3a Rural	4	2	8	4
	3b Urban	4	2	8	4
	3b Rural	4	1	4	5
	4a Urban	4	1	4	5
	4a Rural	4	1	4	5
	4b Urban	4	1	4	5
	4b Rural	4	1	4	5
	5	3	1	3	5

Comments
<p>This relates to the verge within 300mm of the edge of the surfaced carriageway. Any detriment to the verge beyond 300mm from the edge of the surfaced carriageway will be assessed at the Highways Officers discretion with due regard to the safety of the highway user.</p> <p>A purposely excavated channel in the verge (including ditches and grips) for the purpose of highway drainage is not to be considered as part of this defect. Such situations will be assessed at the Highways Officers discretion and, if necessary, the advice of the Maintenance Manager sought. It should also be noted that many roadside ditches/ watercourses are the maintenance responsibility of adjacent landowners.</p>



Example	Defect	
7.2	Verges in Rural areas	Sunken area adjacent to and running parallel with footway

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 300mm deep	All	5	4	20	2
Between 150 and 300mm deep	All	3	3	9	4

Comments
<p>This relates to the verge within 300mm of the edge of the surfaced footway. Any detriment to the verge beyond 300mm from the edge of the surfaced footway will be assessed at the Highways Officers discretion with due regard to the safety of the highway user.</p> <p>A purposely excavated channel in the verge (including ditches and grips) for the purpose of highway drainage is not to be considered as part of this defect. Such situations will be assessed at the Highways Officers discretion and, if necessary, the advice of the Maintenance Manager sought. It should also be noted that many roadside ditches/ watercourses are the maintenance responsibility of adjacent landowners.</p>

Example	Defect	
8.1	Ironwork in the Carriageway	Level difference within framework also sunken or protruding

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
Greater than 100mm deep	All	5	5	25	1
	2	4	5	20	2
Between 40 and 100mm deep	3a Urban	4	4	16	2
	3a Rural	4	3	12	3
	3b Urban	3	4	12	3
	3b Rural	3	3	9	4
	4a Urban	3	3	9	4
	4a Rural	3	2	6	4
	4b Urban	3	3	9	4
	4b Rural	3	2	6	4
	5	3	1	3	5

Comments
<p>These defects are of similar significance to an abrupt edge defect associated with a pothole and accordingly when a level difference of 40mm or greater is recorded will be classified as a safety defect.</p> <p>This includes covers within cycleway and cycle lanes.</p> <p>Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.</p>

Example	Defect	
8.2	Ironwork in the Carriageway	Rocking Covers

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Greater than 80mm displaced face				
Between 30 and 80mm displaced face	2	4	5	20	2
	3a Urban	4	4	16	2
	3a Rural	4	3	12	3
	3b Urban	3	4	12	3
	3b Rural	3	3	9	4
	4a Urban	3	3	9	4
	4a Rural	3	2	6	4
	4b Urban	3	3	9	4
	4b Rural	3	2	6	4
	5	3	1	3	5

Comments
<p>When the displaced face has reached 30mm this will be regarded as a safety defect</p> <p>It should be noted that a displaced face of say 30mm could represent a total rocking movement of 60mm, ie 30mm above and 30mm below normal datum and pro-rata for other values of displaced face.</p> <p>This includes covers within cycleway and cycle lanes</p> <p>Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.</p>

Example	Defect	
8.3	Ironwork in the Carriageway	Cracked / Broken and missing covers

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
Missing	All	5	5	25	1
	2	5	4	20	2
Cracked and broken but still insitu	3a Urban	4	3	12	3
	3a Rural	3	3	9	4
	3b Urban	3	2	6	4
	3b Rural	3	1	3	5
	4a Urban	3	1	3	5
	4a Rural	3	1	3	5
	4b Urban	3	1	3	5
	4b Rural	3	1	3	5
	5	3	1	3	5

Comments
<p>Highways Officer to immediately make safe by replacing cover if possible or cone off the defect.</p> <p>This includes covers within cycleway and cycle lanes,</p> <p>Defects for statutory undertakers apparatus/ironworks are to be reported to the appropriate company using the NRSWA 1991 Section 81 process.</p>

Examples



Displaced gully grate



Missing Inspection cover

Example	Defect	
8.4	Ironwork in the Carriageway	Worn / Polished covers

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Yes covers with dimensions exceeding 200mm x 200mm				
3a Urban		4	3	12	3
3a Rural		3	3	9	4
3b Urban		3	2	6	4
3b Rural		3	2	6	4
4a Urban		3	1	3	5
4a Rural		3	1	3	5
4b Urban		3	1	3	5
4b Rural		3	1	3	5
5		2	1	2	5

Comments
<p>This defect has the potential to exacerbate a skidding related incident as so excessively worn or polished covers should be replaced or where appropriate reported to the relevant utility company for replacement.</p> <p>This includes covers in cycleways.</p> <p>Defects for statutory undertakers apparatus / ironworks shall be reported to the appropriate company using the NRSWA 1991 Section 81 process.</p>

Examples



Worn and polished inspection cover

Example	Defect	
9.1	Ironwork in the Footway	Level difference within framework also sunken or protruding

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 40mm deep	All	5	5	25	1
Between 20 and 40mm deep	1a, 1, 2	4	4	16	2
	3, 4	4	3	12	3
	5	4	2	8	4

Comments
<p>The level difference within the framework of an item of Ironwork or sunken/protruding Ironwork will be as potentially dangerous as a pothole with an abrupt level difference.</p> <p>Defects for statutory undertakers apparatus / ironworks be reported to the appropriate company using the NRSWA 1991 Section 81 process</p>

Examples



Protruding Inspection cover

Example	Defect	
9.2	Ironwork in the Footway	Rocking covers

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Greater than 30mm displaced face	All	5	5	25	1
Between 15 and 30mm displaced face	1a, 1, 2	4	4	16	2
	3, 4	4	3	12	3
	5	4	2	8	4

Comments
<p>This is similar to the danger presented by a rocking flag stone and so when the displaced face is 15mm or greater will be classified as a safety defect</p> <p>It should be noted that a displaced face of say 30mm could represent a total rocking movement of 60mm, ie 30mm above and 30mm below normal datum and pro-rata for other values of displaced face.</p> <p>Defects for statutory undertakers apparatus / ironworks be reported to the appropriate company using the NRSWA 1991 Section 81 process.</p>

Examples



Rocking inspection cover

Example	Defect	
9.3	Ironwork in the Footway	Cracked / Broken and missing covers

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Missing	All	5	5	25	1
Cracked and Broken but still insitu	1a, 1, 2	4	4	16	2
	3, 4	4	3	12	3
	5	4	2	8	4

Comments
<p>Highways Officer to immediately make safe by replacing cover or cone off the defect.</p> <p>Defects for statutory undertakers apparatus / ironworks be reported to the appropriate company using the NRSWA 1991 Section 81 process.</p>

Examples



Damaged cover



Missing cover



Example	Defect	
9.4	Ironwork in the Footway	Worn / polished covers

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Yes	1a, 1, 2	4	3	12	3
	3, 4	4	2	8	4
	5	4	1	4	5

Comments
<p>Excessively worn or polished ironwork should be regarded as in need of replacement.</p> <p>Defects for statutory undertakers apparatus / ironworks be reported to the appropriate company using the NRSWA 1991 Section 81 process.</p>

Example	Defect	
10.1	Ironworks in the Verge Urban and Rural	Cracked / Broken and missing covers

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Missing	All	5	5	25	1
Cracked and broken but still insitu	All	3	1	3	5

Comments
<p>Highways Officer to immediately make safe missing cover by replacing cover if possible or cone off the defect.</p> <p>Defects for statutory undertakers apparatus / ironworks be reported to the appropriate company using the NRSWA 1991 Section 81 process.</p>

Examples



Broken Inspection cover

Example	Defect	
11.1	Drainage	Substantial running water across carriageway

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Primarily caused by ineffective, damaged / non working highway infrastructure depth in wheel-path of over 100mm				
3a Urban		4	4	16	2
3a Rural		4	3	12	3
3b Urban		3	3	9	4
3b Rural		3	3	9	4
4a Urban		3	3	9	4
4a Rural		3	2	6	4
4b Urban		3	1	3	5
4b Rural		3	1	3	5
5		3	1	3	5

Comments
<p>This can cause icing of the carriageway during the winter months.</p> <p>As soon as practicable notwithstanding the priority responses above the street cleansing team should be called to attempt to clear any blockage. The response times for the street cleansing teams shall be as defined in the Highway Maintenance Contract.</p>

Examples



Water flowing across carriageway due to blocked highway drain

Example	Defect	
11.2	Drainage	Substantial running water across footway

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Primarily caused by ineffective, damaged / non-working highway infrastructure	1a, 1, 2, 3, 4	4	2	8	4
	5	4	1	4	5

Comments
<p>This can cause icing of the footway during the winter months</p> <p>As soon as practicable notwithstanding the priority responses above the street cleansing team should be called to attempt to clear any blockage.</p>

Example	Defect	
11.3	Drainage	Substantial standing water at edge of carriageway

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Primarily caused by ineffective, damaged / non-working highway infrastructure depth in wheel-path of over 100mm				
3a Urban		4	5	20	2
3a Rural		4	5	20	2
3b Urban		4	5	20	2
3b Rural		4	5	20	2
4a Urban		3	3	9	4
4a Rural		3	2	6	4
4b Urban		3	3	9	4
4b Rural		3	2	6	4
5		3	1	3	5

Comments
<p>Due to the nature and diversity of defects which could be classed as standing water / flooding, only those which represent an immediate or imminent hazard should be dealt with as Category 1 Defects.</p> <p>It is anticipated that especially where there is no highway drainage infrastructure present that any response will be by the deployment of 'Flood' boards.</p> <p>Notwithstanding the guidance above, all other standing water / flooding events shall be classified at the Highways Officers discretion.</p>

Examples



Standing water during heavy rainfall

Example	Defect	
11.4	Drainage	Blocked gully or drainage grip

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	In dip / low point and likely to result in standing water on the highway				2
3a Urban		3	3	9	4
3a Rural		3	3	9	4
3b Urban		3	3	9	4
3b Rural		3	3	9	4
4a Urban		2	2	4	5
4a Rural		2	2	4	5
4b Urban		2	2	4	5
4b Rural		2	2	4	5
5		2	1	2	5

Comments
<p>If standing water is likely to result from any blockage then the response should be as prioritised above.</p> <p>Reference should also be made to any action required by sections 11.1 to 11.3.</p>

Examples



Gullies blocked by silt

Example	Defect	
12.1	Road Markings and High Friction Coatings	Faded or worn

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Greater than 30% loss to junction markings and double white markings including associated arrows	2, 3a, 3b	5	2	10	3
	4a, 4b, 5	3	2	6	4
Greater than 60% loss to all other white markings	2	3	2	6	4
	3a, 3b, 4a, 4b, 5	3	1	3	5
Greater than 60% loss to all waiting restriction markings	2	3	1	3	5
	3a, 3b, 4a, 4b, 5	2	1	2	5
Greater than 30% loss to High Friction Coating	2, 3a, 3b	4	1	4	5
	4a, 4b, 5	3	1	3	5

Comments
<p>Junction markings are defined as:                      The solid Stop Line and associated STOP wording.                      The dashed Give Way lines and associated triangle</p> <p>Any centre line markings on roads less than 5.5m in width should not be replaced without prior confirmation with Line Manager.</p> <p>High Friction coating does not include coloured surfaces. Coloured surfaces are not recorded as a defect but should be reported to Line Manager for determination of appropriate action.</p> <p>If defective areas cannot be repaired within the specified timescales, then appropriate warning signs should be erected until the permanent repairs have been completed.</p>

Examples



Approx 60% faded markings



Approx 30% faded markings



Approx 50% faded high friction coating

Example	Defect	
13.1	Reflective Road Studs	Missing or defective reflector

Extent		Category	Impact	Probability	Risk Factor	Priority Response
		Road				
Double white line system	More than 10 consecutive	2, 3a, 3b	4	3	12	3
		4a, 4b	3	1	3	5
	Between 5 and 10 consecutive	2, 3a, 3b	4	2	8	4
		4a, 4b	3	1	3	5
Centre lane/edge markings	More than 15 consecutive	2, 3a, 3b	4	2	8	4
		4a, 4b	3	1	3	5

Comments
<p>If shoes are missing, then the Highways Officer should pay attention to the possibility of any displaced items being laid on the carriageway.</p> <p>This particular defect relates to the loss of reflectivity of the road studs as assessed by visual inspection. If necessary, further assessment can be made via a specialist inspection. Additionally, an inspection during the hours of darkness may be needed to confirm reflectivity</p>



Example	Defect	
13.2	Reflective Road Studs	Displaced item on carriageway

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Yes	All	5	5	25	1

Comments
<p>A displaced road stud on the carriageway should be removed as soon as possible.</p> <p>The remaining void as a consequence of the displaced road stud to be assessed against the criteria for potholes</p>

Example	Defect	
14.1	Vehicle Restraint System / pedestrian barrier / boundary walls and fences	Accident damaged or missing

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Yes				
3a Urban		3	2	6	4
3a Rural		3	2	6	4
3b Urban		3	2	6	4
3b Rural		3	2	6	4
4a Urban		3	2	6	4
4a Rural		3	1	3	5
4b Urban		3	2	6	4
4b Rural		3	1	3	5
5		3	1	3	5

Comments
<p>Before requesting any repairs discuss with Line Manager for the requirements at the particular location</p> <p>Minor repairs should be issued to the VRS Contractor for repair. Defective Vehicle Restraint Systems should also be reported to the Highway Asset Management team.</p> <p>Boundary walls and fences are not usually maintained by the highway authority but if, by being damaged or missing, a dangerous hazard is presented then the area should be made safe and if appropriate the owners contacted.</p> <p>The adjacent landowner must be notified of the need to take action in respect of any safety defect.</p>

Example	Defect	
15.1	Signs / Bollards / Marker Posts / lights and traffic signals	Damaged / misaligned item causing a hazard

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Yes				
3a Urban		3	4	12	3
3a Rural		3	4	12	3
3b Urban		3	4	12	3
3b Rural		3	4	12	3
4a Urban		3	3	9	4
4a Rural		3	3	9	4
4b Urban		3	3	9	4
4b Rural		3	3	9	4
5		3	1	3	5

Comments
Notwithstanding the risk assessment above if any item is laid in the highway or is likely to cause a serious incident the Highways Officer should exercise their discretion to have the item removed as soon as possible.

Example	Defect	
15.2	Signs / Bollards / Marker Posts / lights and traffic signals	Missing item causing a hazard

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Yes				2
3a Urban		3	2	6	4
3a Rural		3	2	6	4
3b Urban		3	2	6	4
3b Rural		3	2	6	4
4a Urban		2	1	2	5
4a Rural		2	1	2	5
4b Urban		2	1	2	5
4b Rural		2	1	2	5
5		2	1	2	5

Comments
<p>A missing item will be regarded as a safety defect.</p> <p>Note that where missing illuminated bollards are identified, the situation should be reported to the Road Lighting team.</p> <p>The absence of an information sign is not in itself a safety defect; however, the absence of a warning sign should be treated as a safety defect. In such circumstances temporary warning signs may be needed to comply with the above response times.</p>

Examples



Missing keep left bollard

Example	Defect	
15.3	Signs / Bollards / Marker Posts / lights and traffic signals	Sign / Bollard illumination failure (not including street lighting)

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Yes	2	4	3	12	3
	3a Urban	4	3	12	3
	3a Rural	4	3	12	3
	3b Urban	4	2	8	4
	3b Rural	4	2	8	4
	4a Urban	3	2	9	4
	4a Rural	3	2	9	4
	4b Urban	3	2	9	4
	4b Rural	3	2	9	4
	5	2	2	4	5

Comments
Defect to be reported to Road Lighting team

Example	Defect	
15.4	Signs / Bollards / Marker Posts / lights and traffic signals	Signals not operating correctly / failure (not including street lighting)

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Yes Signals	All	3	5	15	2

Comments
Failure of Signals to be reported to Traffic Engineering Team

Example	Defect	
15.5	Signs / Bollards / Marker Posts / lights and traffic signals	Street Lighting Columns, Illuminated Signs, Beacon and Zebra poles damaged

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Accident damage <sup>(1)</sup>	All	5	5	25	1
Door off, wires exposed <sup>(2)</sup>	All	5	4	20	2
Column/sign post leaning	All	4	2	8	4
Corrosion, Cracking or Spalling	All	3	4	12	3
Lantern/bracket out of alignment	All	3	2	6	4

Comments
<p>Priority 1 and 2 defects must be reported to the Road Lighting Team immediately for action. All other instances must be passed to the Road Lighting Team at the earliest opportunity.</p>

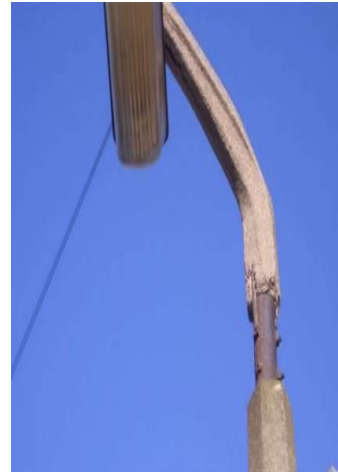
Examples



Damaged in RTA



Corrosion



Spalling Concrete

Example	Defect	
15.6	Signs / Bollards / Marker Posts / lights and traffic signals	Obscured by trees / hedges

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Yes				
3a Urban		3	3	9	4
3a Rural		4	3	12	3
3b Urban		3	3	9	4
3b Rural		3	2	6	4
4a Urban		2	2	4	5
4a Rural		2	2	4	5
4b Urban		2	2	4	5
4b Rural		2	2	4	5
5		2	2	4	5

Comments
Obscured signs, bollards and traffic signals can be a safety defect

Examples



Street lights hidden in trees



Signs hidden by hedges



Example	Defect	
15.7	Signs / Bollards / Marker Posts / lights and traffic signals	Dirty / faded

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Yes				2
3a Urban		3	2	6	4
3a Rural		3	2	6	4
3b Urban		3	2	6	4
3b Rural		3	2	6	4
4a Urban		3	2	6	4
4a Rural		3	2	6	4
4b Urban		3	1	3	5
4b Rural		3	1	3	5
5		2	1	2	5

Comments
<p>Dirty, faded and signs with loss of reflectivity can be particularly difficult to see during the hours of darkness.</p> <p>Damaged and/ or bent signs or signs obscured by graffiti may be a defect. An additional inspection may be required during the hours of darkness to confirm reflectivity.</p> <p>Action should be taken to either clean or replace signs is required within the timescales above.</p>

Examples



Dirty road sign

Example	Defect	
16.1	Hedges and Trees	Unstable tree at risk of collapsing into highway

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Yes	All	5	4	20	2

Comments
<p>If the bush or tree is growing within the highway extents it will be the responsibility of the Highway Authority. If the bush or tree is growing outside of the highway extents (boundary walls, hedges and fences are usually the responsibility of the adjacent property owner) the Highways Officer should make contact with the property owner and request the cutting back or removal in accordance with the Highways Act 1980.</p> <p>Damage caused by tree roots should be assessed and dealt with in accordance with the footway criteria in examples 2.1 to 2.6.</p>

Example	Defect	
16.2	Hedges and Trees	Broken and hanging branches

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Yes	2	4	4	16	2
	3a Urban	4	4	16	2
	3a Rural	4	4	16	2
	3b Urban	4	4	16	2
	3b Rural	4	4	16	2
	4a Urban	3	4	12	3
	4a Rural	3	4	12	3
	4b Urban	3	4	12	3
	4b Rural	3	3	9	4
	5	2	3	6	4

Comments
<p>If the bush or tree is growing within the highway extents it will be the responsibility of the Highway Authority. If the bush or tree is growing outside of the highway extents (boundary walls, hedges and fences are usually the responsibility of the adjacent property owner) the Highways Officer should make contact with the property owner and request the cutting back or removal in accordance with the Highways Act 1980.</p>

Example	Defect	
16.3	Hedges and Trees	Reduction of clearance over carriageway

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Less than 5.1 metre clearance				
3a Urban		4	3	12	3
3a Rural		4	3	12	3
3b Urban		4	3	12	3
3b Rural		4	3	12	3
4a Urban		4	3	12	3
4a Rural		4	3	12	3
4b Urban		4	3	12	3
4b Rural		4	3	12	3
5		4	2	8	4

Comments
<p>Overhanging foliage could force road users towards the centre of the carriageway</p> <p>If the bush or tree is growing within the highway extents it will be the responsibility of the Highway Authority. If the bush or tree is growing outside of the highway extents (boundary walls, hedges and fences are usually the responsibility of the adjacent property owner) the Highways Officer should make contact with the property owner and request the cutting back of the foliage in accordance with the Highways Act 1980.</p> <p>Minimum clearance above carriageway should be 5.05 metres.</p>

Examples



Tree obstructing carriageway

Example	Defect	
16.4	Hedges and Trees	Reduction of clearance over footway or cycleway

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Footway				
Less than 2.1 metre vertical clearance	All	5	4	20	2
Encroaching less than 1.2 metre width remaining	All	3	2	6	4

Comments
<p>If the bush or tree is growing within the highway extents, it will be the responsibility of the Highway Authority. If the bush or tree is growing outside of the highway extents (boundary walls, hedges and fences are usually the responsibility of the adjacent property owner) the Highways Officer should make contact with the property owner and request the cutting back or removal in accordance with NYC's Trees in the highway policy and the Highways Act 1980.</p> <p>Minimum clearance above footway should be 2.4 metres.</p>

Examples



Tree obstructing path

Example	Defect	
17.1	Cattle Grids	Longitudinal gaps and missing rails

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Missing Rails	All	4	4	16	2
Longitudinal gap greater than 15mm	All	4	3	12	3

Comments
<p>Highways Officer to park inspection vehicle in a safe location and carry out a visual inspection from the side of the road.</p> <p>In addition to the above all items indicated in Appendix E of this manual should be visually inspected at all cattle grids during each routine carriageway inspection.</p>

Examples



Missing Rail



Longitudinal gap greater than 15mm

Example	Defect	
18.1	Oil/ debris/ mud on carriageway or footway	Oil / debris / mud on highway

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Yes	All	5	5	25	1

Comments
<p>The procedure in Appendix D of this manual should be followed.</p> <p>The Highways Officer will use his judgement to determine whether a particular situation is a safety defect</p>

Examples



Loose material in centre of road

Example	Defect	
18.2	Highway General	Obstructions in the highway

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road				
Yes	All	5	5	25	1

Comments
<p>Objects such as the fallen road works sign shown below present an immediate or imminent hazard to all highway users and should therefore be dealt with as a Category 1 defect.</p> <p>Due to the nature and diversity of defects which can be classed as a General Hazard, only those which represent an immediate or imminent hazard should be dealt with as Category 1 defects.</p> <p>All other defects identified as a General Hazard that do not represent a immediate or imminent hazard are to be classified at the Highways Officers discretion.</p>

Examples



Fallen sign



Example	Defect	
18.3	Highway General	Scaffolding presenting a hazard

Extent	Category Road	Impact	Probability	Risk Factor	Priority Response
	Yes				
3a Urban		5	4	20	2
3a Rural		5	4	20	2
3b Urban		5	4	20	2
3b Rural		5	4	20	2
4a Urban		5	4	20	2
4a Rural		5	4	20	2
4b Urban		5	4	20	2
4b Rural		5	4	20	2
5		5	3	15	2

Comments
Highways Officer to make contact with owner of scaffolding and arrange remedial works and or make safe by other traffic management measures in accordance with the response times shown above.

Example	Defect	
18.4	Highway General	Skips / building materials presenting a hazard

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road / Footway				
Less than 1m of footway or 3m of carriageway remaining	All	5	5	25	1
In - Carriageway	3a Urban	5	4	20	2
	3a Rural	5	4	20	2
	3b Urban	5	4	20	2
	3b Rural	5	4	20	2
	4a Urban	5	3	15	2
	4a Rural	5	3	15	2
	4b Urban	5	3	15	2
	4b Rural	5	3	15	2
	5	5	3	15	2
In – Footway	1a, 1, 2	4	4	16	2
	3, 4, 5	4	4	16	2

Comments
Highways Officer to make contact with owner of skip or building materials and arrange remedial works and or make safe by other traffic management measures in accordance with the response times shown above.

Examples



Building material

Example	Defect	
19.1	Other dangers to the public	Anything else considered potentially dangerous

Extent	Category	Impact	Probability	Risk Factor	Priority Response
	Road / Footway				
Yes	All	Assessment to be carried out on an individual basis utilizing Risk Matrix in part 3 section 3.4 of this manual to determine appropriate Priority Response decision			

Comments
This will be at the Highways Officers discretion and any hazards found should be assessed using the risk matrix in part 3 section 3.4 of this manual

# Appendix A

## Glossary of Terms

### **Main Definitions**

Ad-hoc Inspection	An Inspection for the specific purpose, case, or situation at hand (ie undertaken in addition to any planned cyclic inspection).
Cyclic Inspections	Inspections occurring at regular predetermined intervals.
Data Capture Device	An electronic machine for converting information into a form that can be handled by a computerised system.
Due Date	The planned date by which an inspection should be carried out.
Insight	The computerised Highway Management Information System used by North Yorkshire Council to store and manage all data and produce reports from safety inspections.
Intervention Level	The standard of asset condition below which remedial works should be undertaken subject to risk assessment
Statutory Undertaker	Any organisation that provides electric, gas, telephone, water, sewerage and television cable systems services to the general public. In this document references to Statutory Undertakers equally applies to NRSWA S50 licence holders.
Highways Officer	Any officer of the Council who is authorised and trained to undertake Highway Safety Inspections.
Road AI	Artificial intelligence which is used to collate highway condition data and asset inventory data such as road signs, road linings and markings.

# Appendix B

Removed from 2017 reviewed document

# Appendix C

## Schedule of Related Documentation and Legislation.

### **Legislation relevant to and / or referred to in this document**

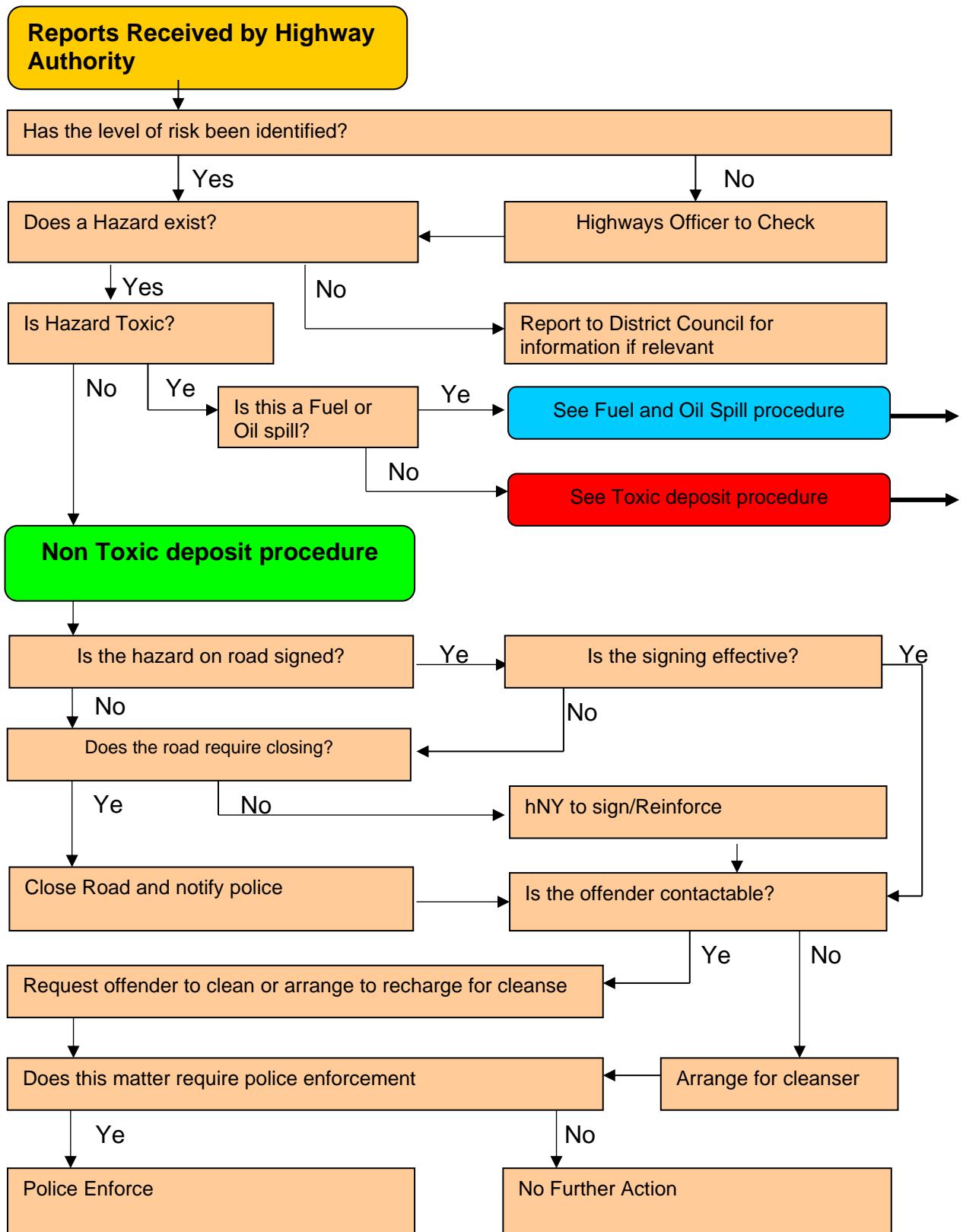
The Highways Act 1980  
The New Roads and Street Works Act 1991  
Road Traffic Regulation Act 1984  
Traffic Signs, Regulations & General Directions 2016  
Road Traffic Act 1988  
Road Traffic Reduction Act 1997  
The Local Authorities (Transport Charges) Regulations 1998  
The Transport Act 2000  
The Traffic Management Act 2004  
Railways and Transport Safety Act 2003  
Equality Impact Assessment

### **Further Documentation**

Well-managed Highway Infrastructure - A Code of Practice for Highway Maintenance Management  
October 2016  
North Yorkshire Council Highway Maintenance Plan – Policy and Standards, April 2006  
Traffic Signs Manual (Chapters 1 – 8)  
Code of Practice for Street Works Inspections April 2023

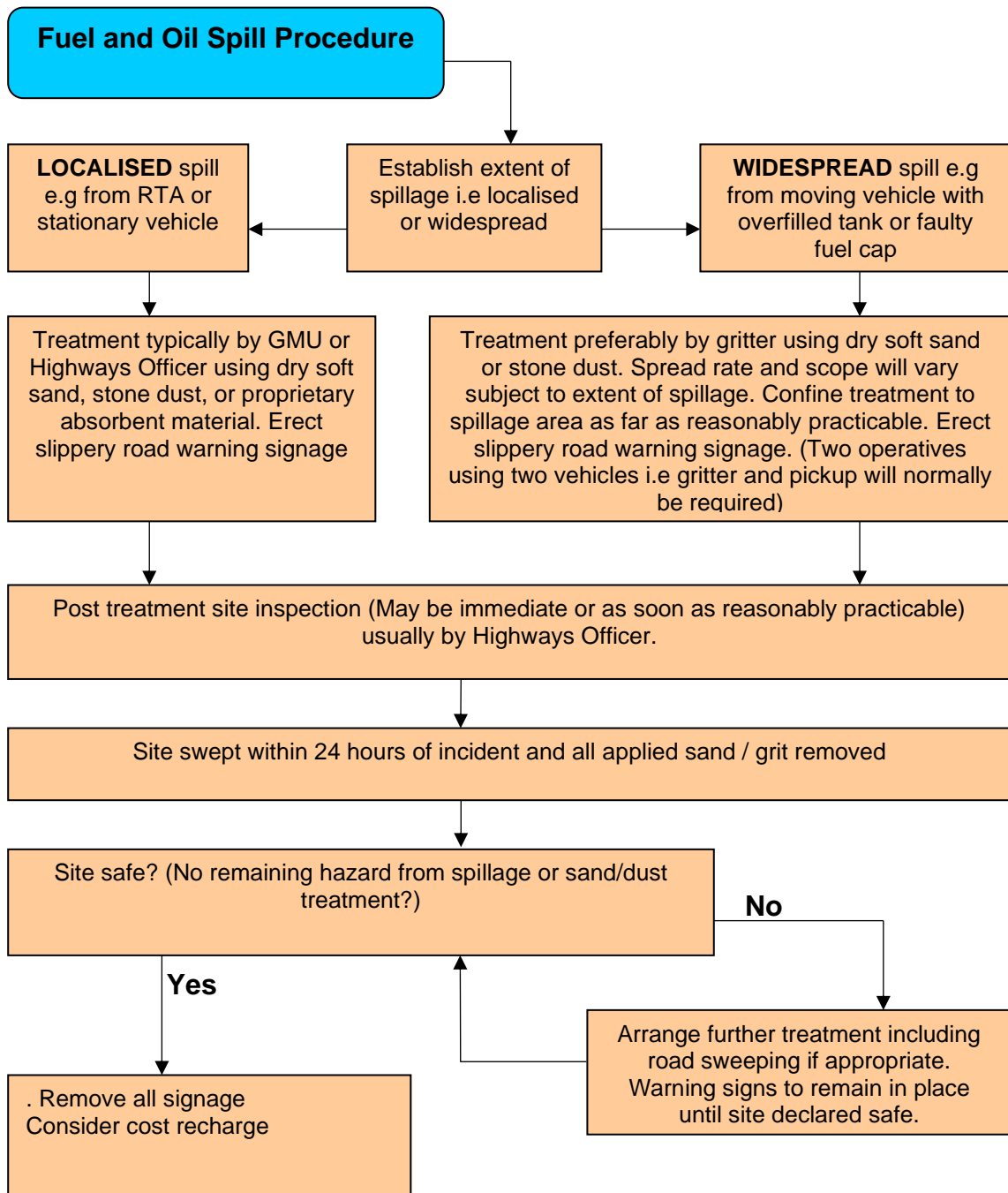
# Appendix D:

## Toxic and Non Toxic deposits on the Highway



## Appendix D: continued

### Toxic and Non Toxic deposits on the Highway



All actions/decisions should be recorded to assist in possible cost recharging and claims defence.

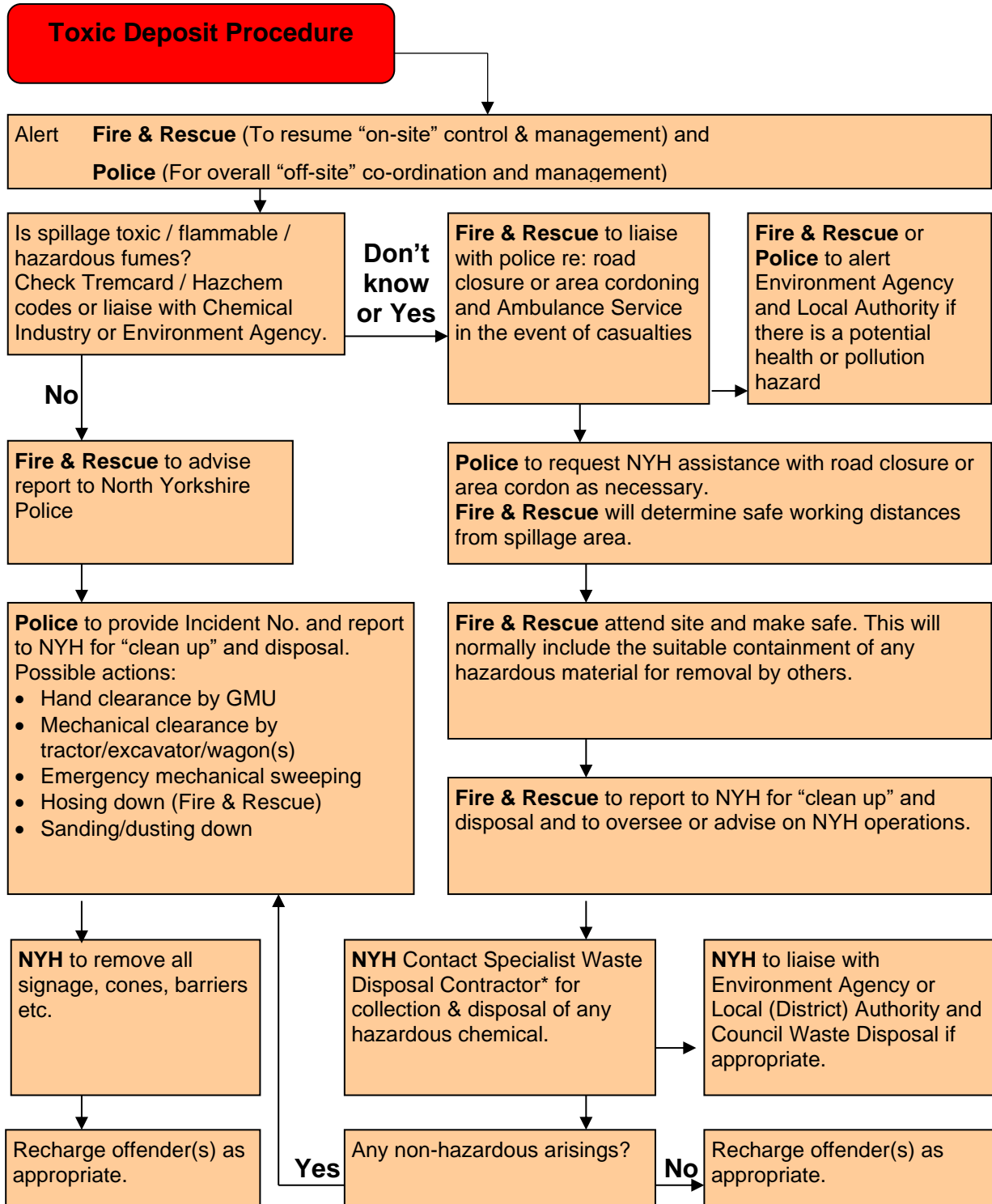
Any significant spillage which enters a watercourse or drainage system should be reported to the emergency services and / or the Environment Agency.

Petrol spillages do not usually warrant sanding treatment as they will readily evaporate



# Appendix D: continued

## Toxic and Non Toxic deposits on the Highway



i) With the role of on-site control & management Fire & Rescue will be involved in most aspects of the response, including standing-by during the non- emergency spillage/materials recovery phase to ensure continued safety on and around the spillage site

ii) NYH is North Yorkshire Highways.

## Appendix E:

### Cattle Grid Visual Inspection Report

Grid Name ..... Road No .....

Grid Reference ..... Area .....

Inspected by ..... Date Inspected .....

Condition Report      To be marked Good / Fair / Poor as appropriate

Item No	Description	Condition	Remarks
1	Running Rails		
2	Support Beams		
3	Welding		
4	Holding Down Bolts		
5	Concrete Pit		
6	Fencing		
7	Bypass Gate		
8	Bypass route		
9	Drainage		
10	Other		

\* I have today inspected the grid and report as above .....

\* I wish to arrange a special inspection of this grid .....

\* Delete as appropriate

# Equality impact assessment (EIA) form: evidencing paying due regard to protected characteristics

(Form updated April 2023)

## Highway Safety Inspection Manual Review

If you would like this information in another language or format such as Braille, large print or audio, please contact the Communications Unit on 01609 53 2013 or email [communications@northyorks.gov.uk](mailto:communications@northyorks.gov.uk).

যদি আপনি এই ডকুমেন্ট অন্য ভাষায় বা ফরমেটে চান, তাহলে দয়া করে আমাদেরকে বলুন।

如欲索取以另一語文印製或另一格式製作的資料，請與我們聯絡。

اگر آپ کو معلومات کسی دیگر زبان یا دیگر شکل میں درکار ہوں تو برائے مہربانی ہم سے پوچھئے۔



**Equality Impact Assessments (EIAs) are public documents. EIAs accompanying reports going to County Councillors for decisions are published with the committee papers on our website and are available in hard copy at the relevant meeting. To help people to find completed EIAs we also publish them in the Equality and Diversity section of our website. This will help people to see for themselves how we have paid due regard in order to meet statutory requirements.**

Name of Directorate and Service Area	Environment, Highways and Transportation
Lead Officer and contact details	Hannah Benson, Highways Area Manager 07967 453602 <a href="mailto:hannah.benson@northyorks.gov.uk">hannah.benson@northyorks.gov.uk</a>
Names and roles of other people involved in carrying out the EIA	Catriona Gattrell, Head of Legal (Corporate Services)
How will you pay due regard? e.g. working group, individual officer	This form will be completed through a combination of work from the above officers
When did the due regard process start?	28 June 2022

**Section 1. Please describe briefly what this EIA is about.** (e.g. are you starting a new service, changing how you do something, stopping doing something?)

North Yorkshire Council has a duty to maintain the highway, as outlined within Section 41 of the Highways Act 1980 and for the purposes of Section 58, which provides for special defence. As part of this duty, the council undertakes inspections of the highway incorporating the carriageway, footway, grass verge and pathways upon which the public have a right of access, and which are maintained at public expense.

The Highway Safety Inspection Manual (HSIM) provides operational guidance to highway officers undertaking highways safety inspections using a risk-based approach.

**Section 2. Why is this being proposed? What are the aims? What does the authority hope to achieve by it?** (e.g. to save money, meet increased demand, do things in a better way.)

The HSIM has been in place since 2013 and is subject to 3-yearly reviews to ensure that it is still relevant and compliant with any new legislation and codes of practice. This EIA accompanies the 2023 review.

**Section 3. What will change? What will be different for customers and/or staff?**

The review is a light touch and will not necessarily make any recommendations for changes to the existing document. Any changes that are required changes would reflect the following two occurrences

- Any changes to legislation or guidance to ensure that the council can continue to maintain its statutory duty as described in section 1.
- Any changes or additions to the local North Yorkshire guidance

In both cases, no changes would be made that would have a negative impact on people with protected characteristics.

**Section 4. Involvement and consultation** (What involvement and consultation has been done regarding the proposal and what are the results? What consultation will be needed and how will it be done?)

Given the technical nature of the review, there is no requirement for any external consultation. A final report will be presented to Heads of Service before being put to the Environment Executive Members Committee.

**Section 5. What impact will this proposal have on council budgets? Will it be cost neutral, have increased cost or reduce costs?**

No impact.

<b>Section 6. How will this proposal affect people with protected characteristics?</b>	<b>No impact</b>	<b>Make things better</b>	<b>Make things worse</b>	<b>Why will it have this effect? Provide evidence from engagement, consultation and/or service user data or demographic information etc.</b>
Age		✓		Increased priority has been given to people with mobility issues. For example, footways and crossings around elderly person's homes, doctors' surgeries, day care centres and hospitals can be given a higher importance as the overall risk factor can be increased.
Disability		✓		See above for details on how priority levels can be increased in areas where there is a potentially higher number of people with mobility issues.
Sex	✓			
Race	✓			
Gender reassignment	✓			
Sexual orientation	✓			
Religion or belief	✓			
Pregnancy or maternity	✓			
Marriage or civil partnership	✓			

<b>Section 7. How will this proposal affect people who...</b>	<b>No impact</b>	<b>Make things better</b>	<b>Make things worse</b>	<b>Why will it have this effect? Provide evidence from engagement, consultation and/or service user data or demographic information etc.</b>
...live in a rural area?	✓			The Highways Safety Inspection Manual uses a risk-based approach to determining the inspection frequency and intervention levels (when a defect is reported and repaired). This ensures that the inspection schedule reflects the relative probability and impact scores consistent with the location.
...have a low income?	✓			
...are carers (unpaid family or friend)?	✓			

<b>Section 8. Geographic impact – Please detail where the impact will be (please tick all that apply)</b>	
North Yorkshire wide	The Highway Safety Inspection Manual is a countywide document.
Craven district	
Hambleton district	
Harrogate district	
Richmondshire district	
Ryedale district	
Scarborough district	
Selby district	
<b>If you have ticked one or more districts, will specific town(s)/village(s) be particularly impacted? If so, please specify below.</b>	

<b>Section 9. Will the proposal affect anyone more because of a combination of protected characteristics? (e.g. older women or young gay men) State what you think the effect may be and why, providing evidence from engagement, consultation and/or service user data or demographic information etc.</b>
There are no additional impacts for people with a combination of protected characteristics.

<b>Section 10. Next steps to address the anticipated impact. Select one of the following options and explain why this has been chosen. (Remember: we have an anticipatory duty to make reasonable adjustments so that disabled people can access services and work for us)</b>	<b>Tick option chosen</b>
<b>1. No adverse impact - no major change needed to the proposal.</b> There is no potential for discrimination or adverse impact identified.	✓
<b>2. Adverse impact - adjust the proposal</b> - The EIA identifies potential problems or missed opportunities. We will change our proposal to reduce or remove these adverse impacts, or we will achieve our aim in another way which will not make things worse for people.	
<b>3. Adverse impact - continue the proposal</b> - The EIA identifies potential problems or missed opportunities. We cannot change our proposal to reduce or remove these adverse impacts, nor can we achieve our aim in another way which will not make things worse for people. (There must be compelling reasons for continuing with proposals which will have the most adverse impacts. Get advice from Legal Services)	
<b>4. Actual or potential unlawful discrimination - stop and remove the proposal –</b> The EIA identifies actual or potential unlawful discrimination. It must be stopped.	
<b>Explanation of why option has been chosen.</b> (Include any advice given by Legal Services.)	
The Highway Safety Inspection Manual review has no negative impact on persons with protected characteristics.	

**Section 11. If the proposal is to be implemented, how will you find out how it is really affecting people?** (How will you monitor and review the changes?)

The highways service monitors and reports on customer calls. Any unexpected impacts caused by implementing recommendation of the review would be highlighted by an increase in a specific type or demographic of these calls. At this point further investigations could take place.

Overall, the Highway Safety Inspection Manual will be monitored and reviewed on a three-year basis.

**Section 12. Action plan.** List any actions you need to take which have been identified in this EIA, including post implementation review to find out how the outcomes have been achieved in practice and what impacts there have actually been on people with protected characteristics.

Action	Lead	By when	Progress	Monitoring arrangements

**Section 13. Summary** Summarise the findings of your EIA, including impacts, recommendation in relation to addressing impacts, including any legal advice, and next steps. This summary should be used as part of the report to the decision maker.

The review of the Highway Safety Inspection Manual is largely an administrative process which ensures that the council is compliant with its statutory duties and any locally produced guidance. The guidelines for inspections within the document are applied across the whole of the county and no group is disadvantaged more than any other. The risk-based approach allows for areas where higher concentrations of people with protected characteristics to have their priority increase within the inspection schedules.

**Section 14. Sign off section**

This full EIA was completed by:

**Name:** Hannah Benson

**Job title:** Highways Area Manager (Craven and Selby)

**Directorate:** Environment

**Signature:** H Benson

**Completion date:** 24 May 2023

**Authorised by relevant Assistant Director (signature):** Barrie Mason

**Date:** 24 May 2023

## Climate change impact assessment

The purpose of this assessment is to help us understand the likely impacts of our decisions on the environment of North Yorkshire and on our aspiration to achieve net carbon neutrality by 2030, or as close to that date as possible. The intention is to mitigate negative effects and identify projects which will have positive effects.

This document should be completed in consultation with the supporting guidance. The final document will be published as part of the decision making process and should be written in Plain English.

If you have any additional queries which are not covered by the guidance please email [climatechange@northyorks.gov.uk](mailto:climatechange@northyorks.gov.uk)

**Please note: You may not need to undertake this assessment if your proposal will be subject to any of the following:**

Planning Permission  
Environmental Impact Assessment  
Strategic Environmental Assessment

However, you will still need to summarise your findings in in the summary section of the form below.

Please contact [climatechange@northyorks.gov.uk](mailto:climatechange@northyorks.gov.uk) for advice.

<b>Title of proposal</b>	<b>Highway Safety Inspection Manual Review</b>
<b>Brief description of proposal</b>	To seek approval from the Corporate Director, Environment Directorate, in consultation with the Environment Executive Member for Highways and Transportation, to authorise minor changes to the Highways Safety Inspection Manual
<b>Directorate</b>	<b>Environment</b>
<b>Service area</b>	<b>Highways and Transportation</b>
<b>Lead officer</b>	<b>Hannah Benson</b>
<b>Names and roles of other people involved in carrying out the impact assessment</b>	
<b>Date impact assessment started</b>	<b>25 May 2023</b>



**Options appraisal**

Were any other options considered in trying to achieve the aim of this project? If so, please give brief details and explain why alternative options were not progressed.

A 'do nothing' approach could mean that the already delayed Highway Safety Inspection Manual review was not in line with current legislation and codes of practice. This could impact NYC's Section 58 defence under the Highways Act 1980.

**What impact will this proposal have on council budgets? Will it be cost neutral, have increased cost or reduce costs?**

Please explain briefly why this will be the result, detailing estimated savings or costs where this is possible.

No impact.

Appendix D

<p>How will this proposal impact on the environment?</p> <p><b>N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.</b></p>	<p><b>Positive impact</b> (Place a X in the box below where</p>	<p><b>No impact</b> (Place a X in the box below where</p>	<p><b>Negative impact</b> (Place a X in the box below where</p>	<p>Explain why will it have this effect and over what timescale?</p> <p>Where possible/relevant please include:</p> <ul style="list-style-type: none"> <li>• Changes over and above business as usual</li> <li>• Evidence or measurement of effect</li> <li>• Figures for CO<sub>2</sub>e</li> <li>• Links to relevant documents</li> </ul>	<p>Explain how you plan to mitigate any negative impacts.</p>	<p>Explain how you plan to improve any positive outcomes as far as possible.</p>
<p>Minimise <b>greenhouse gas emissions</b> e.g. reducing emissions from travel, increasing energy efficiencies etc.</p>	Emissions from travel	x				
	Emissions from construction	x				
	Emissions from running of buildings	x				
	Other	x				
<p>Minimise <b>waste</b>: Reduce, reuse, recycle and compost e.g. reducing use of single use plastic</p>		x				
<p>Reduce <b>water</b> consumption</p>		x				
<p>Minimise <b>pollution</b> (including air, land, water, light and noise)</p>		x				

Appendix D

<p>How will this proposal impact on the environment?</p> <p>N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.</p>	<p><b>Positive impact</b> (Place a X in the box below where</p>	<p><b>No impact</b> (Place a X in the box below where</p>	<p><b>Negative impact</b> (Place a X in the box below where</p>	<p>Explain why will it have this effect and over what timescale?</p> <p>Where possible/relevant please include:</p> <ul style="list-style-type: none"> <li>• Changes over and above business as usual</li> <li>• Evidence or measurement of effect</li> <li>• Figures for CO<sub>2</sub>e</li> <li>• Links to relevant documents</li> </ul>	<p>Explain how you plan to mitigate any negative impacts.</p>	<p>Explain how you plan to improve any positive outcomes as far as possible.</p>
<p>Ensure <b>resilience</b> to the effects of climate change e.g. reducing flood risk, mitigating effects of drier, hotter summers</p>		x				
<p>Enhance <b>conservation</b> and wildlife</p>		x				
<p>Safeguard the distinctive characteristics, features and special qualities of <b>North Yorkshire's landscape</b></p>		x				
<p>Other (please state below)</p>		x				

**Are there any recognised good practice environmental standards in relation to this proposal?** If so, please detail how this proposal meets those standards.

N/A

**Summary** Summarise the findings of your impact assessment, including impacts, the recommendation in relation to addressing impacts, including any legal advice, and next steps. This summary should be used as part of the report to the decision maker.

The review of the Highway Safety Inspection Manual is largely an administrative process which ensures that the council is compliant with its statutory duties and any locally produced guidance. The changes to the manual will have no climate change impact.

#### Sign off section

This climate change impact assessment was completed by:

<b>Name</b>	<b>Hannah Benson</b>
<b>Job title</b>	<b>Area Manager (Area 5, Skipton, Area 7, Selby)</b>
<b>Service area</b>	<b>Highways and Transportation</b>
<b>Directorate</b>	<b>Environment</b>
<b>Signature</b>	<b>H Benson</b>
<b>Completion date</b>	<b>25 May 2023</b>

**Authorised by relevant Assistant Director (signature):** Barrie Mason

**Date:** 25 May 2023