Pride in our Community

Creating a better borough

Telford & Wrekin Council

Highway Inspection Policy

March 2018

a co-operative council

Telford & Wrekin COUNCIL

Document Version Control

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Foreword

Telford & Wrekin Council is responsible for the management of over 1,000km of adopted roads and over 1,100km of adopted footway/cycleways. These highway assets have been valued at over £1 billion and their maintenance is of paramount importance. Those who live, work and travel in our borough have a right to expect to be kept safe; those whose businesses are located in our borough rely on the Council to provide a safe and serviceable network for the movement of goods and people; and the highway asset itself needs to be managed properly in order to continue functioning as it should.

In order to maintain a safe and reliable network, the Council has developed this safety inspection policy in line with revised good practice.

The approach outlined in this document will ensure that the transport infrastructure in the Borough is maintained to the highest standard that is possible within existing budgetary constraints.

This document forms part of a group of asset management strategies and policies. It outlines the Council's response to the recently published UK Roads Liaison Group (UKRLG) Code of Practice 'Well Managed Highway Infrastructure' in relation to highway inspections and demonstrates how Telford & Wrekin Council will use the Highway inspection process, monitoring information and a regime of procative maintenance to reduce risk and provide a safe highway network

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Services & Pride Programme

March 2018

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SECTION 1 - INTRODUCTION

1.1. The risk-based national code of practice, 'Well-managed highway infrastructure' (the Code) was introduced in October 2016. The Council's current approach to highways inspection was based on previous guidance which was prescriptive in nature. With the introduction of the Code Authorities are expected to develop their own levels of service in accordance with local needs and priorities and the overarching change is one from reliance on specific guidance to a risk-based approach determined by each local highway authority.

1.2. This Highway Inspection Policy outlines how we will comply with the Code. It supersedes all previous approaches to highway inspection and repair within the Borough and sets out the policy on how damaged or faulty highway assets that may create a danger or serious inconvenience to highway users are managed through a system of inspection, risk assessment and repair.

1.3. Defects that meet the identified investigation criteria (outlined in Appendix A) are to be assessed using a risk assessment matrix. The purpose of this assessment is to determine;

- the degree of risk they may pose to a highway user; and
- an appropriate and reasonable response to that risk.

1.4. This policy has due regard for the following documents:

- Highways Act 1980
- Well Managed Highway Infrastructure 2016 (WMHI)
- Well Managed Highway Liability Risk 2017
- Telford & Wrekin Council Asset Management Policy & Strategy 2016

SECTION 2 - LEGISLATION

2.1 The Highways Act 1980 sets out the main duties of highway authorities in England and thus Telford & Wrekin Council. In particular Section 41 imposes a duty to maintain highways maintainable at public expense and the majority of highway related claims against authorities arise from the alleged breach of Section 41.

2.2 Section 58 of the Act provides for a defence against an alleged failure to maintain on the grounds that the authority has taken the care that is reasonably required to ensure that the part of the highway in question was not dangerous for the appropriate type of traffic, including pedestrians.

SECTION 3 – HIGHWAYS INSPECTIONS

3.1 Highways Safety Inspections are carried out for the following reasons:

- to meet the statutory obligation of Telford & Wrekin Council to maintain the highway in a safe condition;
- to identify defects that are likely to create a danger or serious inconvenience to highway users or the wider community;
- to determine the degree and timing of repairs;
- to provide network condition data to asset managers, thereby assisting in the management of the highway network and future maintenance programmes; and
- to provide a Section 58 defence against highway claims

SECTION 4 – TRAINING AND QUALIFICATIONS

4.1 Training and consistency requirements are outlined in the Highway Safety Inspection Training and Consistency Statement (Appendix B)

4.5 Full details of required competencies are identified in the Telford & Wrekin Asset Management Competency Framework document.

SECTION 5 - SAFETY INSPECTION REGIME

5.1 As recommended in WMHI the safety inspection regime uses a risk assessment process to determine the degree of risk a defined defect[1] imparts upon highway users. The result of this assessment defines an appropriate response ranging from 'immediate' to 'no further action' and is detailed in Table 1.0 below.

Table 1.0 RISK MATRIX

		PROBABILITY / LIKELIHOOD OF INTERACTION WITH HIGHWAY USER				
		Rare (1)	Unlikely (2)	Possible (3)	Likely (4)	Almost Certain (5)
IMPACT	None (1)	1	2	3	4	5
	Negligible (2)	2	4	6	8	10
	Minor (3)	3	6	9	12	15
	Moderate (4)	4	8	12	16	20
	Serious (5)	5	10	15	20	25

Category 4 (Low Risk) Consider an appropriate response including no further action / monitor / add to capital programme list	Category 3 (Medium Risk) Repair within 28 days	Category 2 (High Risk) Make safe or repair within 7 days	Category 1 Make safe or repair by end of the next working day 24 hour response

A defect with almost certain probability (5) and serious impact (5) is defined as an emergency.
These defects pose an immediate threat to life and TWC must attend site within 2 hours and make safe or repair urgently.

[1] A defect which meets defined investigatory levels (as defined in Appendix A)

SECTION 6 - DEFECT INVESTIGATORY CRITERIA

6.1 The overarching purpose of highways safety inspections is to identify defects within the highway that are likely to create a danger or serious inconvenience to highway users. In order to provide clear guidance minimum investigatory criteria has been developed using a risk and evidence based approach, benchmarking with other Highway Authorities and WMHI. Detailed descriptions of defects and the defined investigatory criteria are provided in Appendix A.

6.2 Inspections will not be carried out on reported defects which do not meet the minimum investigation criteria.

SECTION 7 – SAFETY INSPECTION ROUTES AND FREQUENCIES

7.1 Safety Inspections will be undertaken on the following highway elements:

- Adopted carriageways
- Adopted footways
- Adopted cycleways
- Council owned (Unadopted) carriageways and footways in residential areas
- Ironbridge Park & Ride Site
- Council owned public car parks

7.2 The frequency of safety inspections assigned to each maintenance category at the time of writing is detailed in Appendix D. Safety inspection regimes will undergo a minor review each year and a major review every five years to coincide with the network hierarchy reviews. The reason for any changes made to the inspection regime will be documented.

7.3 Where a council owned unadopted footway or carriageway in a residential area forms part of a length of adopted footway or carriageway it will be inspected to the same frequency. Otherwise it will be inspected on an annual basis.

7.4 Rather than adhering to rigid inspection dates, all inspections must be completed within the scheduled calendar month. For routes which are inspected monthly, a minimum of 3 weeks and maximum of 5 weeks is allowable between inspections.

SECTION 8 – SAFETY INSPECTION DELIVERY

8.1 Highway safety inspections should not be carried out during the hours of darkness/dusk or under conditions of poor visibility e.g. snow, fog, heavy rain. Periods of peak traffic flows should be avoided where possible.

8.2 Footway inspections will be walked. Cycleway inspections can be walked or cycled.

8.3 Carriageway and cycleway inspections can be undertaken on foot if this is appropriate for practical reasons or if the associated footway is being inspected at the same time.

8.4 Driven inspections will be undertaken by two people with the passenger being a competent inspector.

8.5 Dual carriageway inspections and sections of three lane carriageway will be undertaken in each direction of travel.

SECTION 9 – RECORDING OF DEFECTS

9.1 Defects that meet the investigation criteria are recorded on a data capture device using an inspection route loaded on the device prior to beginning the inspection. In the event of a catastrophic IT failure inspections will be recorded manually at the time of inspection and the system updated when available.

9.2 When possible the use of a Global Positioning System device will be used and a trace produced for evidence that an inspection has taken place on the date and time recorded and to enable more accurate positioning of defects.

9.3 Photographs of defects will be stored with inspection records. The photographs will comply with the following:

- Photograph should not be focused on the defect only. They should be taken to show the context of the defect and the surrounding environment.
- The image quality must be clear, in focus and not blurred or obscured.

9.4 When a defect is identified as requiring investigation the risk assessment process will determine the appropriate action. Where this is deemed a Category 4[2] defect a more detailed rationale for the chosen action will be provided

9.5 Defects associated with a Statutory Undertaker will be recorded on the data capture device and the section 81 procedure started by the end of the next working day. Where possible any associated costs will be charged to that undertaker.

SECTION 10 – INVESTIGATORY ACTION AND REPAIR OF ACTIONABLE DEFECTS

10.1 Unless otherwise stated the standards and specification of the defect repair will be as detailed in the contract document in use at the time the defect is found and an order issued (where appropriate).

10.2 Defect repairs must be permanent unless otherwise stated in the works instruction. Temporary repairs are only acceptable where permanent repairs cannot be carried out immediately and risk assessment identifies that a 'make safe' is required.

10.3 Where a safety defect is made safe by means of temporary signing or repair, arrangements will be made to ensure the continued integrity of the signing or repair until a permanent repair can be completed. The nature of these arrangements will be defined through risk assessment.

SECTION 11 – SPECIAL REQUIREMENTS

11.1 At times defects identified within an area of carriageway will require the investigatory criteria of a footway defect to be applied.

They are as follows:

- The width of a defined pedestrian crossing point identified by tapered and dropped kerb units, often accompanied by tactile paving
- Light controlled crossings
- Zebra crossings

[2] A category 4 defect is assessed as low risk and may be deemed to require no action.

- Carriageways that are closed to all motorised vehicles as pedestrianised areas for specific periods of the day.

11.2 For the purpose of safety inspection a metalled carriageway, footway or cycleway is one where the surface consists of a hard, bound material such as asphalt, concrete or clay paving / paviours. An unmetalled carriageway, footway or cycleway is one where the surface material is unbound.

11.3 Many highways have been dedicated and adopted with historic features that would not be acceptable in a current highway design. This might include steps, cellar openings or drainage arrangements that present potential trip situations worse than the intervention levels suggested in this document. These should not be recorded as defects, as in law the highway has been adopted with these encumbrances and the public must take appropriate care.

11.4 Bridges and retaining walls will be subject to a superficial inspection during the carriageway, footway or cycleway inspection. Any surface defects that meet the investigatory criteria will be assessed according to the relevant carriageway defect.

11.5 A number of highway assets are not inspected in detail during routine highway safety inspections due to the complexity of the asset. These assets include:

- Streetlights
- Highway Trees
- Highway Structures
- Statutory Undertaker Equipment

Any obvious safety defects identified are highlighted by the safety inspectors and reported to the appropriate asset owner. Further information can be found in Appendix A

APPENDIX A : DEFECT INVESTIGATORY CRITERIA

A1.0 The following defect descriptions are used to determine which defects within the highway network require investigation.

A1.1 The criteria has been developed using a mixture of best practice, risk assessment and benchmarking.

A1.2 Defects take into account policies of neighbouring highway authorities and where possible similar parameters have been adopted to ensure consistency.

A1.3 Defects are listed below and will be applied to the appropriate element of the highway regardless of location. A more detailed description of each defect and the position within the highway is provided defect by defect.

A1.4 Where defect dimensions are stated, the investigatory criteria is based on reported dimensions. Risk assessment carried out on site will be based on actual dimensions.

1.1 Pothole
1.2 Standing/running water
1.3 Embankment or bank slips
1.4 Spillages
1.5 Obstructions
1.6 Overriding
1.7 Defective high friction surface
1.8 Dangerous or obstructing trees
1.9 Obscured visibility and overgrown hedges & bushes
1.10 Defective road markings
1.11 Defective ironwork
1.12 Defective overhead cables
1.13 Defective roadworks signing
1.14 Missing pre-formed modules
1.15 Obstructions - materials, goods, equipment & signs
1.16 Cracks and gaps
1.17 Abrupt level differences/Trip
1.18 Rocking flag
1.19 Damaged road restraint systems
1.20 Defective boundary fences
1.21 Streetlights, Illuminated or Variable Message Signs & lit Bollards
1.22 Defective road traffic signs
1.23 Defective traffic signals
1.24 Damaged steps
1.25 Damaged handrails
1.26 Cracking/Defective surfacing joints
1.27 Defective traffic calming features
1.28 Damaged kerb
1.29 Depressions and humps

1.1 POTHOLES	**February 2018**
Investigatory Criteria An area of material loss resulting in a vertical edge depression.	
Minimum dimension where applicable	
Carriageway & Unmetalled cycleway	20mm deep and 300mm in any horizontal direction
Footway & Cycleway	10mm deep and 50mm in any horizontal direction
Sample Photograph	
Carriageway 	**Footway/Cycleway** 
Response 1. Undertake risk assessment to determine response. 2. If required sign and guard area or close road/footway/cycleway to make safe. 3. Repair pothole according to the pothole repair policy.	
Notes	
At certain times it may be necessary for the Inspector to carry out preliminary inspections where only potholes that meet the investigation criteria will be identified and repaired. Inspectors may make safe potholes as an interim measure and raise a works order for a permanent repair. The footway investigatory criteria will be applied to a carriageway at defined pedestrian crossing points or where pedestrians are encouraged to cross or where there is a marked cycle lane on the carriageway.	

1.2 STANDING/RUNNING WATER	February 2018

Investigatory Criteria

Standing or running water on carriageways where a speed limit of 40mph or above is in force and where highway users can reasonably travel at 40mph or above to minimise the risk of aquaplaning.

Minimum dimension where applicable

Carriageway	If, after 24 hours from when rain has ceased, the road is impassable, or standing/running water is forcing vehicles, cyclists or pedestrians away from the nearside of the carriageway by more than 1m, or if vehicles have to cross the centreline marking
Footway & Cycleway	N/A

Sample Photograph

Response

1. Undertake risk assessment to determine response.
2. Attempt to clear standing water if appropriate
3. If unable to clear water, use flood sign or guard area or close road to make safe.
4. Investigate permanent solution.

Notes

During prolonged heavy rain standing / running water may not be treated as a defect requiring investigation unless reported as ‘dangerous’. Consultation will be required with adjacent landowner/occupier where appropriate.

1.3 EMBANKMENT OR BANK SLIPS	February 2018

Investigatory Criteria

An embankment or bank slip obstructing a highway surface or leaving the haunch exposed or unsupported.

Minimum dimension where applicable

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

Sample Photograph

Carriageway and Footway

Response

1. Undertake risk assessment to determine response.
2. Sign and guard area or close road/footway/cycleway to make safe.
3. Consider other traffic management requirements until obstruction removed and any underlying problems are resolved

Notes

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

1.4 SPILLAGES	**February 2018**
Investigatory Criteria Spillages include: hazardous liquid, effluent, diesel, oil, petrol & mud. Minor spillages do not require investigation.	
Minimum dimension where applicable	
Carriageway	Spillages of an area greater than 0.5 m²
Footway & Cycleway	Spillages of an area greater than 0.5 m²
Sample Photograph	
Carriageway 	**Footway/Cycleway** 
Response 1. Undertake risk assessment to determine response. 2. If required sign and guard area or close road to make safe. 3. Treat spillage with appropriate material and sweep surface if necessary	
Notes	
Where a spillage is, or could be, of a hazardous nature, remedial action must be undertaken. Each situations should be risk assessed and appropriate remedial action planned based on location, speed of road and extent of spillage.	

1.5 OBSTRUCTIONS	**February 2018**

Investigatory Criteria

Debris on the carriageway is a defect. Examples include: fallen trees or tree limbs, excessive surplus surface dressing chippings, debris dropped from vehicles, excessive mud, sand, soil or slurry.

Minimum dimension where applicable

Carriageway	Any obstructions on roads with national speed limit. On lower speed roads any obstructions restricting running lane width to less than 3m or affecting skid resistance of surface ,
Footway & Cycleway	Any obstructions on footpaths reducing width to less than 1.2m or cycleways less than 1.8m

Sample Photograph

Carriageway

Footway/Cycleway

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area or close road/footway/cycleway to make safe.
3. Clear obstruction and investigate a permanent solution if required.

Notes

Legislation on mud and slurry is included in section 148 of the Highways Act.

- Farmers should sign the road during periods of cultivation and sweep road after works are complete.
- Fallen trees must be signed and guarded until aboricultural contractors can remove the obstruction.
- Chippings from surface treatments will be periodically swept during aftercare for up to 4 weeks after treatment.

1.6 OVERRIDING	February 2018

Investigatory Criteria

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

Minimum dimension where applicable

Carriageway	More than 100mm below the carriageway
Footway & Cycleway	N/A

Sample Photograph

Carriageway

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area or close road to make safe.
3. Fill verge with suitable material.

Notes

Each case must be assessed separately.

- Verge marker posts can be used; or
- Where overriding will continue the verge must be filled with compacted type 1 stone and then topped off with tarmac.
- Overriding of private land needs to be addressed with agreement of landowner.

1.7 DEFECTIVE HIGH FRICTION SURFACING	February 2018

Investigatory Criteria

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

Minimum dimension where applicable

Carriageway	More than 1m^2 joined area in wheel tracks
Footway & Cycleway	N/A

Sample Photograph

Carriageway

Response

Undertake risk assessment to determine response.

1. Erect slippery road signs.
2. Repairs up to 1m² are undertaken by the term maintenance
3. Contractor.
4. Areas in excess of 1m² or where extensive failure is identified are assessed against the criteria in the skidding policy

Notes

Permanent action to be undertaken in accordance with the Council's skidding policy.

Any polished covers in HFS should be identified to relevant asset owner (utility/Council). Council covers should be risk assessed and replaced/treated as required.

1.8 DANGEROUS OR OBSTRUCTING TREES	February 2018

Investigatory Criteria

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

Minimum dimension where applicable

Carriageway	The minimum Vertical clearance over the carriageway needs to take account of the traffic using the route
Footway & Cycleway	• Obstructing the clear passage of pedestrians/cyclists forcing them off the footway/cycleway: or • It reduces the vertical clearance above the footway to less than 2.1m or 2.5m on a cycleway.

Sample Photograph

Response

1. Undertake risk assessment to determine response.
2. Remove or close road/footway/cycleway to make safe.
3. Follow procedures in Tree Safety Management Guidance.

Notes

The minimum vertical clearance over the carriageway needs to take account of the traffic using the route.
Permanent obstructions lower than 5.03m (16' 6") (such as bridges) require the appropriate warning signs (Chapter 4 Traffic Signs Manual).

Responsibilities for landowners/occupiers with trees adjacent to the highway, and the powers of the Council in this respect, are contained in section 154 of the Highways Act. Where possible the landowner/occupier should be given the opportunity to undertake the appropriate remedial work and retain ownership of any waste material. When a dangerous or damaged tree is identified as a safety defect the tree must be marked and actioned according to the Corporate Tree Safety Management Guidance as an imminently dangerous tree – inspection and subsequent action must be recorded.

1.9 OBSCURED VISIBILITY AND OVERGROWN HEDGES & BUSHES	**February 2018**

Investigatory Criteria

Obscured visibility due to overgrown vegetation overhanging the highway is a defect. Overgrown vegetation that obscures the end of a bridge parapet jutting into the footway is a defect. Traffic signal heads which are obscured by vegetation and therefore not visible to highway users are a defect. A street light lamp, regulatory/warning traffic sign or bollard that is obscured by vegetation is a defect.

Minimum dimension where applicable

Carriageway	• Overhanging in sight lines at bends, junctions or laybys. • obstructing the clear passage of the highway user or • forcing vehicles, cyclist or pedestrians away from the nearside of the carriageway by more than 1 m; • vehicles have to cross the centreline marking; or • Cyclists have to cross a cycle lane boundary marking.
Footway & Cycleway	• Overhanging in sight lines at locations where pedestrians/cyclists are encouraged to cross the carriageway • overhanging the highway and obstructing the clear passage of pedestrians/cyclists forcing them off the footway/cycleway; or • It reduces the vertical clearance above the footway to less than 2.1m or 2.5m on a cycleway.

Sample Photograph

Footway/Cycleway

Response

1. Undertake risk assessment to determine response.
2. Cut back overgrowth if council owned
3. Initiate S154 procedure for overgrown vegetation if private.

Notes

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

Where possible the landowner/occupier should be given the opportunity to undertake the appropriate remedial work and retain ownership of any waste material.

1.10 DEFECTIVE ROADMARKINGS	February 2018

Investigatory Criteria

Any roadmarking detailed in the notes below requires investigation when missing or worn/obscured by more than 70% on point markings and 70% over an 18m length on longitudinal lines or the road marking is illegible.

Minimum dimension where applicable	
Carriageway	N/A
Footway & Cycleway	N/A

Sample Photograph

Carriageway	**Footway/Cycleway**
	

Response

1. Undertake risk assessment to determine response.
2. Use road marking warning signs to make safe.
3. Remark lining.

Notes

See below

Diagram numbers	
1001	STOP at signals,
1001.2	STOP with cycle lane
1001.3	STOP & zig zags at crossing
1002.1	STOP at junction
1003	GIVE WAY junction
1003.1	GIVE WAY roundabout
1003.3	GIVE WAY mini roundabout
1003.4	Mini roundabout
1004.1	Warning Lines
1009	Edge of carriageway
1010	Edge of carriageway at lay-by
1012.1	Edge of Carriageway Marking (where road width is insufficient to have centre line)
1012.2 & 1012.3	Vibraline Edge Marking,
1013 (.1 / 3 / .4)	Solid Centrelines,
1014	Deflection arrows
1017	Single YELLOW lines
1018.1	Double YELLOW lines
1022	STOP
1023	GIVE WAY triangle
1024	SLOW
1024.1	Path to be taken by high vehicles
1025 (.1/.2/.3)	Bus Stops
1026	Keep clear
1027.1	zig zag at school
1029	Direction pedestrians should look for approaching traffic
1035, 1036.1, 1036,2, 1037.1	Text and Arrows
1038	Arrows
1040, 1040.2, 1040.3, 1040.4 & 1040.5	lines to hatching
1041 & 1041.1	Chevron lining systems
1042 & 1042.1	Solid lines to hatching,
1043 & 1044	Yellow Boxes
1046	NO ENTRY
1049	Bus Lane/Cycle Lane boundary marking
1062	Cushion/Hump Solid Triangle
1065	speed roundel on carriageway surface

Roadmarkings with diagram numbers 1003 and 1023 where on an urban residential estate road and not part of a junction with a local distributor and where the markings are not essential for highway safety reasons will be noted and passed to the asset manager for programmed work.

Inspectors should contact the Streetworks Team during office hours to report the defect and a section 72 notice will be raised if the defect relates to a Statutory Undertaker.

Request for works order should be raised which will then be treated as part of the planned annual programme which is completed periodically on an area basis.

1.11 DEFECTIVE IRONWORK	February 2018

Investigatory Criteria

- A missing or broken cover to any chamber/box.
- A collapsed or collapsing chamber
- A high or low cover or frame when the cover within the frame or the frame itself, is above or below the immediate surrounding carriageway level by as outlined below
- A rocking cover when the rocking is as outlined below.

A grating where the slots run parallel to the carriageway edge without lateral infill members is a defect. A slippery cover within an area of high friction surfacing is a defect.

Minimum dimension where applicable	
Carriageway	High/low or rocking cover +/- 20mm
Footway & Cycleway	High/low or rocking cover +/- 10mm

Sample Photograph

Carriageway	**Footway/Cycleway**
	

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area or close road/footway/cycleway to make safe.
3. Instigate Section 81 procedure if related to a statutory undertaker.

Notes

Rocking covers in urban areas that move less than 40mm but under traffic cause noise levels unacceptable to persons living in the vicinity, are not a safety defect but should be rectified as soon as possible, using the S.81 notice if appropriate.
All slippery covers within high friction surfacing should be treated.

1.12 DEFECTIVE OVERHEAD CABLES	February 2018

Investigatory Criteria

Low cables across carriageways, footways and cycleways

A supporting pole or structure that is damaged or leaning dangerously, adjacent to the highway that could fall on to it or affect the cable it is supporting across the highway.

Minimum dimension where applicable	
Carriageway	Vertical clearance to lower than 5m
Footway & Cycleway	Footway - vertical clearance to lower than 2.1m Cycleway - vertical clearance to lower than 2.5m

Response

1. Undertake risk assessment to determine response.
2. Contact Statutory Undertaker
3. If required sign and guard area or close road/footway/cycleway to make safe.

Notes

The height of a cable should be estimated & **under no circumstances should it be actually measured by highway inspectors.**

1.13 DEFECTIVE ROADWORKS SIGNING	February 2018

Investigatory Criteria

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

Minimum dimension where applicable	
Carriageway	N/A
Footway & Cycleway	N/A

Sample Photograph

Carriageway	Footway/Cycleway
	

Response

1. Undertake risk assessment to determine response.
2. Check permit conditions
3. Inform site manager/foreman

Notes

Inspectors should determine if a section 65 notice is required and action as required.

1.14 MISSING PRE-FORMED MODULES	December 2018

Investigatory Criteria

The void from missing or sunken preformed flags, slabs, channels or paviours

Minimum dimension where applicable

Carriageway	Void is greater than 20mm deep and 300mm in a horizontal direction or rocking modules greater than 40mm
Footway & Cycleway	Void is greater than 10mm deep and 50mm in a horizontal direction or rocking modules greater than 10mm

Sample Photograph

Carriageway

Footway/Cycleway

Recommended Action

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area or close road/footway/cycleway to make safe.
3. Repair modules as appropriate.

Notes

Missing modules can be made safe with a tarmac infill, but permanent repair is required. Stock of some modular materials is available at the Council's storage yard.

Council owned public/pedestrianised paved areas should be assessed as highway.

1.15 OBSTRUCTIONS: **MATERIALS GOODS, EQUIPMENT & SIGNS**	**February 2018**

Investigatory Criteria

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

Minimum dimension where applicable

Carriageway	Vertical clearance to permissible overhanging signs or banners of less than 5m
Footway & Cycleway	Vertical clearance to overhanging signs or banners on a footway of less than 2.1m or 2.5m on a cycleway

Sample Photograph

Footway/Cycleway

Response

1. Undertake risk assessment to determine response.
2. Discuss with sign owner and or remove to the side of the highway.

Notes

Advertising signs and A boards on the footway should be photographed and reported to the team responsible for highways enforcement.

1.16 CRACKING AND GAPS	February 2018

Investigatory Criteria

A crack or gap meeting the dimension criteria below

Minimum dimension where applicable	
Carriageway	See defect 1.26
Footway & Cycleway	Greater than 20mm wide and 10mm deep

Sample Photograph

Footway/Cycleway

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area or close footway/cycleway to make safe.
3. Repair as appropriate.

Notes

This defect is usually caused by the loss of mortar or the movement of flags and pedestrians may catch their heel or toes in the void.

This defect does not apply to a kerb, for defects relating to kerbs see defect 1.28 Damaged Kerb.

This defect also applies to marked pedestrian crossing points within the carriageway e.g. pedestrian crossings & pedestrian phase signalled crossings.

1.17 ABRUPT LEVEL DIFFERENCE/TRIP	February 2018

Investigatory Criteria

An abrupt level difference in the carriageway will be classed as a defect when it has a vertical displacement.

A sharp edged defect on a footway/cycleway with a vertical deviation is a defect - This defect does not apply to a kerb, for defects relating to kerbs see defect 1.28 Damaged Kerb.

Minimum dimension where applicable	
Carriageway	Greater than 20mm over a width greater than 300mm
Footway & Cycleway	Greater than 10mm from the adjacent surrounding area

Sample Photograph

Carriageway	**Footway/Cycleway**
	

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area or close road/footway/cycleway to make safe.
3. Ramp level difference on carriageway to make safe.
4. Repair as appropriate on footway/cycleway

Notes

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

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

1.18 ROCKING FLAG	February 2018

Investigatory Criteria

A moving flag, paviour, block, kerb or channel where one edge rises or falls defect.

Minimum dimension where applicable

Carriageway	N/A
Footway & Cycleway	Greater than 10mm

Sample Photograph

Footway/Cycleway

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area or close footway/cycleway to make safe.
3. Relay rocking flag.

Notes

1.19 DAMAGED ROAD RESTRAINT SYSTEMS	February 2018

Investigatory Criteria

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

Minimum dimension where applicable

Carriageway	N/A
Footway & Cycleway	N/A

Sample Photograph

Carriageway

Footway/Cycleway

Response

1. Undertake risk assessment to determine response.
2. Sign and guard area until permanent action undertaken.
3. Investigate permanent repair

Notes

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

The VRS asset manager should be contacted in all cases of damage and the risk based strategy applied to repairs. If associated with RTC, vehicle details or crime number must be recorded where possible.

When damage has been noted to a bridge or retaining wall parapet the inspector should contact the Bridges and Structures asset manager for action.

When testing the stability of pedestrian guardrails and railings the inspector should apply gentle pressure.

1.20 DEFECTIVE BOUNDARY FENCES & WALLS	February 2018

Investigatory Criteria

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

Minimum dimension where applicable

Carriageway	N/A
Footway & Cycleway	N/A

Sample Photograph

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area or close road/footway/cycleway to make safe.
3. Arrange for livestock to be removed from highway immediately.
4. If private fence/wall inform owner.
5. If TWC fence/wall arrange repair with Bridges and Structures asset manager.

Notes

This defect also applies to a boundary hedge where livestock is straying onto the highway.

Ownership of the boundary wall should be determined and in the case of a private wall reported to Building Control. If a highway wall, report damage to the Bridges and Structures asset manager.

1.21 STREETLIGHTS, ILLUMINATED OR VARIABLE MESSAGE TRAFFIC SIGNS & ILLUMINATED BOLLARDS	**February 2018**

Investigatory Criteria

Any damage to a streetlight, externally and internally illuminated sign or bollard, or variable message sign, or any other item of illuminated street furniture; where the electricity supply is exposed, or the column or lamp is unstable is a defect. An externally or internally illuminated sign, VMS or bollard where the illumination does not work is a defect.

Minimum dimension where applicable

Carriageway	N/A
Footway & Cycleway	N/A

Sample Photograph

Response

1. If required sign and guard area or close road/footway/cycleway to make safe.
2. Report issue to Street Lighting team and/or Traffic team
3. Repair undertaken in accordance with current street lighting maintenance contract.

Notes

Under no circumstances should the highway inspector attempt to affect a repair. Any damage to the road traffic sign that is part of an illuminated or non-illuminated bollard should be noted as a damaged road traffic sign.

1.22 DEFECTIVE ROAD TRAFFIC SIGNS AND POSTS	**February 2018**

Investigatory Criteria

- Any regulatory/mandatory sign or hazard/warning sign that has been damaged, or is missing.
- Any regulatory sign or hazard/warning sign that is obscured; obviously faded; or covered in dirt or algae
- Any type of sign that is damaged so as to be a danger to road users
- Any damaged or obviously missing reflector on the end of a bridge parapet
- Any verge marker post using No.561 reflectors that is damaged, missing or not upright
- Any badly corroded or obviously damaged sign post or bollard.

Minimum dimension where applicable

Carriageway	N/A
Footway & Cycleway	N/A

Sample Photograph

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area to make safe.
3. Replace post is appropriate
4. Clean sign or arrange permanent repair

Notes

Any works to reset and existing sign/bollard can be raised directly via a works order, replacements must be raised as a works request to the traffic team for assessment.

1.23 DEFECTIVE TRAFFIC SIGNALS	February 2018

Investigatory Criteria

- Any defective lamp or control box on a traffic signal
- Traffic signal heads which are out of alignment and therefore not visible to highway users
- Electrical or control boxes that are open or tampered with are a defect.

Minimum dimension where applicable

Carriageway	N/A
Footway & Cycleway	N/A

Sample Photograph

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area to make safe.
3. Notify traffic team to arrange repair with traffic signal maintenance contract.

Notes

In hours report fault to Traffic Team
Out of hours report to contractor's helpline.

1.24 DAMAGED STEPS	February 2018

Investigatory Criteria

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

Minimum dimension where applicable	
Carriageway & Cycleway	N/A
Footway	greater than 10mm

Sample Photograph

Footway

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area to make safe.
3. Repair as appropriate

Notes

If damage to steps is excessive an emergency closure of the steps may be required.

1.25 DAMAGED HANDRAILS	February 2018

Investigatory Criteria

A loose or broken handrail.

Minimum dimension where applicable

Carriageway	N/A
Footway & Cycleway	N/A

Sample Photograph

Footway/Cycleway

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area to make safe.
3. Repair as appropriate

Notes

If damage to handrails is excessive an emergency closure of the steps may be required.

1.26 CRACKING/DEFECTIVE SURFACING JOINTS	February 2018

Investigatory Criteria

Cracking to the carriageway surface including surfacing joints.

Minimum dimension where applicable	
Carriageway	When at least 20mm wide and 300mm in any horizontal direction and 40mm deep
Footway & Cycleway	Refer to defect 1.16 Cracks and Gaps

Sample Photograph

Carriageway

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area to make safe consider road closure if necessary.
3. Repair as appropriate

Notes

Proprietary crack infill repairs are commissioned as batches of work and should be a HAPAS approved product

1.27 DEFECTIVE TRAFFIC CALMING FEATURES	February 2018

Investigatory Criteria

Missing or loose sections or missing or proud bolts within a modular traffic calming feature. This defect also includes constructed calming features.

Minimum dimension where applicable

Carriageway	N/A
Footway & Cycleway	N/A

Sample Photograph

Carriageway

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area or close road to make safe.
3. Repair as appropriate

Notes

Consideration may be given to constructing traffic calming feature using alternative materials.

1.28 DAMAGED KERB	February 2018

Investigatory Criteria

- A crack, gap or trip is a defect when greater than 10mm at designated crossing points and footways/cycleways in Town, District and Local Centres
- A crack or gap in kerbs of greater than 20mm is a defect on all other footways/cycleways
- A kerb protruding into the Carriageway with a vertical displacement of 20mm and or a horizontal displacement of 50mm is a defect.

Minimum dimension where applicable	
Carriageway	N/A
Footway & Cycleway	As outlined above

Sample Photograph

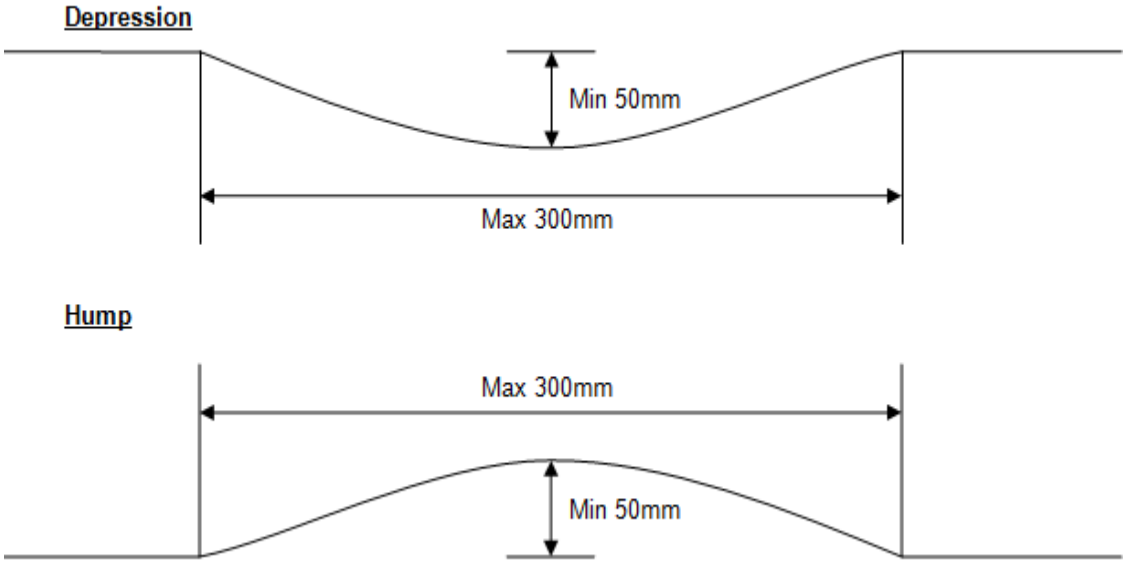
Footway/Cycleway

Response

1. Undertake risk assessment to determine response.
2. If required sign and guard area to make safe.
3. Repair as appropriate

Notes

Permanent repair may include dealing with the causation of the defect, trees for example.

1.29 DEPRESSIONS AND HUMPS	February 2018
Investigatory Criteria A steep change of profile	
Minimum dimension where applicable	
Carriageway	Greater than 100mm and extending in any horizontal direction less than 1m
Footway & Cycleway	Greater than 50mm and extending in a horizontal direction of less than 300mm
Example	
Footway/Cycleway  	
Response 1. Undertake risk assessment to determine response. 2. If required sign and guard area or close footway/cycleway to make safe. 3. Repair as appropriate	
Notes	

APPENDIX B: HIGHWAYS SAFETY INSPECTION POLICY STATEMENTS

Risk Based Approach
The Council will take a risk based approach to highway safety inspections and associated defect repairs. This will be based on the potential consequences of a highway defect (based on its severity and location) combined with the likelihood of that consequence occurring.

Competency
All safety inspectors working on the Telford & Wrekin Highway Network will have completed accredited training appropriate to their role within 12 months of starting their employment.
In-house training on the Highway Inspection Policy and associated Manual will be provided and will be complemented by annual on-site training.

Systems
Inspectors will use an accredited Highways Asset Management System (HAMS) to carry out safety inspections, keep accurate inspection records and respond to reported defects. The same system will be used by the Council's Principal Contractor to manage workload, apply for road bookings via the permits system and record completed works.

Highway Safety Inspections
The Council will aim to complete all inspections within the prescribed timescales.
Safety inspections will be coordinated centrally with particular emphasis on aiming to meet deadlines with a consistent approach to all inspections.

Review of Local Road & Footway Hierarchies and Inspection Regimes
Road and footway hierarchies will be reviewed every five years to ensure that the network is up to date and that categories are still appropriate. Safety inspection regimes will undergo a minor review each year and a major review every five years to coincide with the network hierarchy reviews. The reasons for any changes made to the inspection regime will be documented.

Inspection Frequency
The Council will aim to adhere to prescribed safety inspection frequencies. All safety Inspection completion dates, including 'nil returns' will be recorded.

Method of Inspection
Highway Safety Inspections will be carried out in a safe and approved manner to ensure the safety of the highway inspector and other road users.

Inspector Response Time
The Council will aim to inspect all reported defects and take appropriate action within the agreed response times.

APPENDIX C: WMHI RECOMMENDATIONS RELATING TO THIS POLICY

WMHI RECOMMENDATION 1: USE OF THE CODE
This Code, in conjunction with the UKRLG[3] Highway Infrastructure Asset Management Guidance (HIAMG), should be used as the starting point against which to develop, review and formally approve highway infrastructure maintenance policy and to identify and formally approve the nature and extent of any variations

WMHI RECOMMENDATION 5: CONSISTENCY WITH OTHER AUTHORITIES
To ensure that users' reasonable expectations for consistency are taken into account, the approach of other local and strategic highway and transport authorities, especially those with integrated or adjoining networks, should be considered when developing highway infrastructure maintenance policies.

WMHI RECOMMENDATION 7: RISK BASED APPROACH
A risk based approach should be adopted for all aspects of highway infrastructure maintenance, including setting levels of service, inspections, responses, resilience, priorities and programmes.

WMHI RECOMMENDATION 12: NETWORK HIERARCHY
A network hierarchy, or a series of related hierarchies, should be defined which include all elements of the highway network, including carriageways, footways, cycle routes, structures, lighting and rights of way. The hierarchy should take into account current and expected use, resilience, and local economic and social factors such as industry, schools, hospitals and similar, as well as the desirability of continuity and of a consistent approach for walking and cycling.

WMHI RECOMMENDATION 15: COMPETENCIES AND TRAINING
The appropriate competency required for asset management should be identified, and training should be provided where necessary. (HIAMG Recommendation 10)

WMHI RECOMMENDATION 16: INSPECTIONS
A risk-based inspection regime, including regular safety inspections, should be developed and implemented for all highway assets.

WMHI RECOMMENDATION 18: MANAGEMENT SYSTEMS AND CLAIMS
Records should be kept of all activities, particularly safety and other inspections, including the time and nature of any response, and procedures established to ensure efficient management of claims whilst protecting the authority from unjustified or fraudulent claims.

WMHI RECOMMENDATION 19: DEFECT REPAIR
A risk-based defect repair regime should be developed and implemented for all highway assets.

[3] United Kingdom Roads Liaison Group

APPENDIX D: SAFETY INSPECTION REGIME

The following safety inspection regime was in place in November 2017.

Carriageway		
Maintenance Category	**Network Hierarchy**	**Frequency**
1	Primary Route	Monthly
	Principal Distributor	Monthly
2	District Distributor	Two monthly
	Local Distributor	Four Monthly
3	Local Access Road	Six Monthly
Footways & Cycleways		
Maintenance Category	**Network Hierarchy**	**Frequency**
1	Shopping centres	Monthly
3	Local access road	Six monthly
4	Remote Footpaths	Bi-Yearly
Car Parks		
Maintenance Category	**Network Hierarchy**	**Frequency**
4	Park & Ride	Annually
4	Public Car Parks (including footways)	Annually

APPENDIX E: HIGHWAY INSPECTOR'S TRAINING & CONSISTENCY STATEMENT

Highway Inspectors' Training and Consistency Statement	Telford & Wrekin COUNCIL

This document is to be read in conjunction with the Telford & Wrekin Highway Inspection Policy

1. Background Requirements

1.1 All personnel involved in managing or carrying out safety inspections must be competent and have successfully completed the UK Highway Inspectors training and certification scheme approved by the UK Roads Board in 2010 or any subsequent revision.

1.2 It is essential that all personnel carrying out safety inspections should be included on the National Register of Highway Inspectors currently held by the Institute of Highway Engineers.

1.3 All personnel undertaking a safety inspection must be familiar with 'Safety at Streetworks and Roadworks: A Code of Practice' and understand the requirements of Chapter 8 of the Traffic Signs Manual.

1.4 To ensure consistency, in house training on the Highway Inspection Policy and the associated inspection criteria will be provided on an annual basis and will be complemented by on-site training no less than 3 times annually.

1.5 It is essential that all personnel carrying out safety inspections have been trained in risk assessment theory and practice.

2. Annual Training

2.1 Before any new version of the Highway Inspection Policy is implemented all highway inspectors will undertake in-house classroom-based training in order to ensure that they fully understand the policy. Particular emphasis will be placed on the following

- Purpose and importance of highway inspections
- Method of inspection
- Use of software and systems
- Intervention levels
- Risk assessment
- Emergency response
- Health & Safety

This training will be repeated on an annual basis in the form of online training using the Council's in-house e-learning resource.

3. Regular Training

3.1 At least three times each year the highway inspectors, supervisors, coordinators and line managers will carry out a joint walked inspection on a selected route. The purpose of this is
- To identify discrepancies and ensure consistency of approach
- To provide refresher training in relation to risk assessments

3.2 If a high level of inconsistency is identified the frequency of on-site training will be increased.

3.3 All staff involved in highway inspections will attend the in-house risk assessment training on an annual basis.

4. Inspection Audits

4.1 On a monthly basis the line manager, or supervisor, or coordinator will audit a random sample of completed inspections.

4.2 The audit will check that all necessary information has been provided as well as assessing the suitability of the risk assessed response.

4.3 When a new highways inspector has joined the team their inspections will be audited more frequently to ensure consistency.

New Starters

5.1 It is essential that all new highway inspectors who have not already done attend the next available UK Highway Inspectors training and certification scheme course.

5.2 The highways inspection e-learning resource must be completed during the first week of employment.

5.3 In addition to the standard health and safety training for all new starters, highway inspectors must be booked onto the next available in-house risk assessment course

5.4 The whole team will undertake an interim on-site training session during the first month of employment.

5.5 As outlined above, an ad hoc selection of inspections carried out by new starters will be audited on a weekly basis.