



London Borough of Barnet (LBB)
Improving Barnet's Roads

Highway Infrastructure Safety Inspection Manual (HISIM)



DRAFT

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1. Foreword

- > The highway network is one of the Council's most valuable assets. Through regeneration and infrastructure improvement it is continuing to expand and therefore increasing in value. Keeping the network in good condition is a huge challenge given rising travel demand and traffic flow. The purpose of highway maintenance is to maintain the highway network for the safe, convenient and efficient movement of people and goods. The LBB Highway Infrastructure Asset Management Plan sets out the overarching asset management approach.
- > The Department for Transport (DfT) "*Well-Managed Highways Infrastructure*" Code of Practice (CoP) October 2016 provides guidance for highway authorities on how to discharge their responsibilities and deliver an efficient, effective and economic highway maintenance service. The procedures adopted by the Council (London Borough of Barnet -LBB) in preparing this Highway Infrastructure Safety Inspection Manual are guided by the latest 2016 revision of the CoP, with practical amendments made to reflect local circumstances. Relevant extracts from the CoP have been placed into this document as appropriate.
- > The purpose of this Manual (HISIM) is to provide a clear and consistent quality system guidance/ standards and support for Highway Infrastructure Maintenance inspections to ensure a consistent approach and standards across the borough. It provides important guidance to LBB Highway Inspectors, Operational Managers, and other LBB Highways staff carrying out maintenance related inspections on the highway infrastructure network.
- > The adoption of the robust and risk based safety defect inspection, recording, and rectification regime set out in this Highway Infrastructure Safety Inspection Manual (HISIM) will minimise the risk of claims for damages against LBB which are costly and a significant drain on limited resources. The LBB current (2021) claim repudiation rate is circa 75%.
- > This HISIM will also help to inform Councillors, the Public and other LBB stakeholders of the approach to the maintenance of the highway network and response to identified defects.
- > This HISIM is primarily focussed on the regime for highway infrastructure safety inspections although it does cover the basic arrangements for related service inspections, and asset condition surveys linking to planned maintenance.

2. Introduction

- > The establishment of an effective regime of inspection, assessment and recording is the most crucial component of highway maintenance. The characteristics of the regime, including frequency of inspection, items to be recorded and nature of response, should be defined following an assessment of the relative risks associated with potential circumstances of network condition. These are set in the context of the authority's overall policy and maintenance strategy.
- > This inspection, assessment and recording regime provides the basic information for addressing the core objectives of highway maintenance namely; safety, serviceability and sustainability.
- > Inspections and surveys will be considered in the following categories:
 - **Safety Inspections:** These are designed to identify all safety defects likely to create danger or serious inconvenience to users of the network or the wider community. The risks of those safety defects are assessed and remedial actions taken based on the danger they pose to road users.
 - **License Inspections/Enforcement:** These inspections will determine whether a developer or construction project has the relevant licenses in place as outlined in the Highways Act 1980. Inspections will generally consist of an initial condition survey (if an application has been made), an inspection during construction, and an inspection upon completion or reinstatement.
- > This HISIM conforms with the latest legislative framework and Code of Practice guidance regarding highway infrastructure maintenance inspections. It covers the core elements of asset classification, network classification/hierarchy, process for inspections, decision making and record keeping, resource needs, performance management, training health and safety and training requirements will be covered as relevant in each section.

3. Legislative, National, and Local Frameworks

3.1 Highway Act 1980

- > There is a legal requirement under Section 36 to maintain a list of adopted roads (roads maintainable at public expense).
- > Under Section 41 the Council has a statutory duty to maintain all adopted roads. Neglecting this duty could lead to claims against the Council for personal injuries/damages resulting from failure to maintain the highway.
- > All Authorities are therefore strongly advised to undertake safety inspections in accordance with the principles of the current guidance document (Well Managed Highways Infrastructure 2016) so that, where necessary, they are able to support a defence under Section 58 of the Highways Act 1980. This requires that a court shall have regard to

'whether the highway authority knew or could reasonably be expected to know, that the condition of the part of the highway to which the action relates was likely to cause danger to users of the highway'.

- > Section 58 also states that the court shall in particular have regard for:
 - The character of the highway and the traffic which was reasonably to be expected to use it.
 - The standard of maintenance appropriate for a highway of that character and use by such traffic.
 - That state of repair in which a reasonable person would have expected to find the highway.
 - Whether the Authority knew or could reasonably have been expected to know that the condition of the highway was likely to cause danger to users
 - Whether warning notices were displayed when immediate repair could not reasonably be expected
- > A robust inspection system supports regime facilitates an excellent service for road users and provides evidence to show that the highway authority has acted reasonably. It is therefore vital that the Council categorises and documents all roads and footpaths for inspection together with the frequency of inspection and the intervention criteria for repairing defects.
- > As well as the authorities obligations under section 58 of the Highways Act 1980, it will ensure that all other requirements and obligations in regard to maintenance, licensing and enforcement are realised.

3.2 The Traffic Management Act 2004

- > The Traffic Management Act 2004 (TMA) placed a statutory requirement on highway authorities called the Network Management Duty (NMD). This duty made highway authorities responsible for three main areas.
 - Appoint a Traffic Manager
 - To secure the expeditious movement of traffic on the authority's road network.
 - To facilitate the expeditious movement of traffic on road networks for which another authority is the traffic authority.
- > All local authorities were encouraged to use all powers available to carry out their Network Management Duty. Failure to deliver an authority's NMD could result in central government issuing an intervention order.
- > This order would set out the requirements for improvements within a set time. Further failure could result in central government appointing a Traffic Director to carry out the functions of the Council's Traffic Manager. The associated cost for any required information or appointment would be met by the failing authority.
- > The Act 2004 (TMA) also introduced a permit scheme in which highway promoters including the Council would need to obtain a permit to work. The permit scheme replaces the noticing regime under NRSWA with the main difference being that a highway promoter would have to ask when they could work in a street as opposed to just informing them when they were going to work and the highway authority being able to apply conditions to the permit.
- > Barnet applied to the Department for Transport in October 2009 to operate a London Permit Scheme (LoPS) and was granted permission via a statutory instrument, which came into force on 11th January 2010.
- > The authority will ensure that where all highways maintenance activities are taking place, that parity is shown to other promoters in line with the current LBB Utilities Charter.

3.3 The New Roads & Street Works Act 1991

- > The New Roads and Street Work Act 1991 (NRSWA) sets out the legal framework for work promoters and aims to balance everyone's needs. It focuses around three main criteria.
 - Safety
 - Co-ordination
 - Protecting the integrity of the highway
- > The 1991 Act introduced strict codes of practice for these three key areas and gave highway authorities additional powers and responsibilities, which were to be carried out as a statutory requirement.
- > Utility Companies have a legal right to place their apparatus within the public highway but they have a statutory duty under the noticing regime to notify the Highway Authority of their intention to work. They must work safely and restore the highway to an acceptable level. Local builders have no statutory right to work on the highway and those who want to place/retain and thereafter inspect/maintain apparatus in the highway must obtain a street works licence.
 - The two statutory duties under NRSWA:
 - Co-ordinate all Street Works and Highway Activities on the highway.
 - Inspect utility companies' works and reinstatements.
- > Although inspections relating to street works being carried out on the public highway are the direct responsibility of the street works inspectors there is an overlap between defects identified in relation to these works and those identified by highway inspectors as part of safety or service inspections. Inspectors should take a joined up approach and ensure all activities are inspected, reported and actioned in accordance with current legislation.

3.4 "Well-Managed Highway Infrastructure" Code of Practice October 2016

- > The Dft "Well-Managed Highway Infrastructure"; A Code of Practice (CoP) 2016 is the primary guidance available to local highway authorities to assist them in discharging their duties in an effective manner. The following principles and context are stated in the CoP;
 - This document is the first edition of 'Well-managed Highway Infrastructure'. It replaced the previous separate Well-maintained Highways, Management of Highway Structures and Well-lit Highways.
 - The Code is intended to apply throughout the United Kingdom. Production has been overseen by the UK Roads Liaison Group (UKRLG) and its Roads, Bridges and Lighting Boards. It is recognised that there are differences in approach to some matters in England, Scotland, Wales and Northern Ireland, which are not always detailed in the Code, but general principles are set out.
 - The Code is designed to promote the adoption of an integrated asset management approach to highway infrastructure based on the establishment of local levels of service through risk-based assessment. It also includes guidance on some additional topics.
 - The Code is produced as a single document to emphasise the integrated approach to highway network infrastructure assets.
 - Delivery of a safe and well maintained highway network relies on good evidence and sound engineering judgement. The intention of this Code is that Authorities will develop their own levels of service and the Code therefore provides guidance for authorities to consider when developing their approach in accordance with local needs, priorities and affordability.
 - Changing from reliance on specific guidance and recommendations in the previous Codes to a risk-based approach determined by each Highway Authority will involve appropriate analysis, development and gaining of approval through authorities' executive processes. Some authorities may be able to implement a full risk-based approach immediately. Others may require more time and may choose to continue with existing practices for an interim period, in which case the previous Codes will remain valid for them until the earlier of when they have implemented their approach or a period of two years from the date of publication of this Code.
 - In the interest of route consistency for highway users, all authorities, including strategic local, combined and those in alliances, are encouraged to collaborate in determining levels of service, especially across boundaries with neighbours responsible for strategic and local highway networks. Boundaries are not usually apparent to users and authorities should be aware of the possibility of distinct changes to levels of service through a risk-based local approach, both across authority boundaries and between roads with different character within an authority.
 - All Highway Authorities should consider adoption of new and emerging technologies as part of their highway service. This should include consideration of new ideas, methods of working and innovation in order to drive greater efficiency.
 - References to third party documents and web sites are included throughout to provide further information and support on various topics, but are not to be seen as part of the Code of Practice. References are to the version current at the time of this Code's publication, unless otherwise indicated.

- > The code is essential for the delivery of a well managed highway infrastructure network, it should be understood and utilised by all members of the Traffic & Compliance team.
- > A summary of the CoP key recommendations is included at Appendix F.

3.5 Highway Infrastructure Asset Management Plan (HIAMP)

The LBB HIAMP is the overarching highway infrastructure maintenance policy document. Implementation of and compliance with the HIAMP is through a suite of operational manuals which include this Highway Infrastructure Safety Inspection Manual.

3.6 Operational Network Hierarchy (ONH)

- > Well-Managed Highway Infrastructure Code of Practice October 2016 includes the key Recommendation 12 regards a 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.
- > LBB has an Operational Network Hierarchy (ONH) . It is a standalone document but an integral dependency for the HISIM. The purpose of the ONH is to explain the complete process and methodology used by the London Borough of Barnet (LBB) to produce their Operational Network Hierarchy (ONH) using a factor based scoring system. The ONH applies to the carriageway, footway and designated cycleway networks where such exist, but excludes Public Rights of Way.
- > The ONH is a fully controlled document subject to periodic overall review but also dynamic localised temporary network changes driven by changing risks. It is a stand alone document accessible through a link at Appendix C
- > It is necessary to have a hierarchy because different parts of the carriageway and footway network have different characteristics and risks to users (drivers/vehicles, pedestrians and cyclists). All Highway Authorities must comply with the Highways Act 1980 and in particular it is essential to be able to apply the Section 58 statutory defence to defend third party claim liabilities by demonstrating reasonable systems and maintenance to ensure road user safety. A key part of such systems is a clear basis for applying different inspection and maintenance expenditure plans for different parts of the highway network.
- > The ONH is essential for the delivery of a well managed highway network, it should be understood and utilised by the Traffic & Compliance team.

4. Record Keeping (Maintenance Management Systems)

4.1 Confirm

- > The Council uses highway maintenance management software called Confirm to collect, store and access all records about its highway assets.
- > The database can be interrogated using pre-set or specific reports which combine data according to the users' specification to provide quick and up to date information on the assets and inspection records.
- > The handheld computers used by Highway Inspectors are updated daily and give them access to recent information from the database to allow them to make more informed decisions thus ultimately improving the service delivered to Barnet's residents. Street works co-ordinators also have the ability to access the database remotely although at present they are updating it in the office only.
- > The LBB highway network is electronically defined into the system together with a thorough asset inventory to provide a base to record any defects, repairs, improvement, or amendment to the borough's highway assets.
- > Information about work to be carried out on the network (safety defect works instruction) is sent to the Council's contractors electronically via the Confirm application. The contractor is required to inform the Council of completed works using the same system. This allows all information exchange to be centrally recorded and monitored to ensure compliance with the contractual timescales for defect correction.
- > All information recorded, even if not primarily intended for network safety purposes, may have consequential implications for safety and may therefore be relevant to legal proceedings.
- > Under the freedom of information Act 2000, all publicly held records are potentially available for public inspection and reference.

5. Asset Inventory and Classification

5.1 Asset Inventory

- > Highway assets such as roads, street furniture, and underground drains are the council most valuable assets and are essential to ensure the effective movement of goods and people in the borough.
- > A thorough inventory of these assets is required in order to ensure that they provide users with the required level of service and allow the Council to target available funds in line with its current strategy.
- > A number of attributes are recorded for each asset such as location, nature, general condition, dimensions, and maintenance history. These data are then used to enable officers to take informed decision on the most appropriate way to maintain them throughout their serviceable life.
- > As with any database the quality of its information over time depends on it being regularly updated. The management of works undertaken as a result of planned, reactive and cyclical maintenance through the authority's maintenance programme will ensure that the information is kept up to date.
- > The current LBB Asset inventory covers records for: see Appendix H.

5.2 Road Hierarchy - ONH

- > A network hierarchy is the foundation of a coherent, consistent and auditable maintenance strategy. It is also crucial to asset management in establishing levels of service and to the new statutory network management role for developing co-ordination and regulating occupation.
- > Tables 1 and 2 below (referenced in this document as tables 5.1 and 5.2) are CoP extracts that are used by the LBB ONH which provide definitions for carriageway and footways based on their location and usage.

Table 5.1: Carriageway Hierarchy

TABLE 1 - CARRIAGEWAY HIERARCHY			
Category	Hierarchy Description	Type of Road General description	Description
1	Motorway	Limited access motorway regulations apply	Routes for fast moving long distance traffic. Fully grade separated and restrictions on use.
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

TABLE 1 - CARRIAGEWAY HIERARCHY (cont)			
Category	Hierarchy Description	Type of Road General description	Description
3a	Main Distributor	Major Urban Network and Inter-Primary Links. Short - medium distance traffic	Routes between Strategic Routes and linking urban centres 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.
3b	Secondary Distributor	Classified Road (B and C class) and unclassified urban bus routes carrying local traffic with frontage access and frequent junctions	In rural areas these roads link the larger villages and HGV generators 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 including zebra crossings. On-street parking is generally restricted except for safety reasons
4a	Link Road	Roads linking between the Main and Secondary Distributor Network with frontage access and frequent junctions	In rural areas these roads link the smaller villages to the distributor roads. They are of varying width and not always capable of carrying two way traffic. In urban areas they are residential or industrial interconnecting roads with 30mph speed limits random pedestrian movements and uncontrolled parking.
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 often only single lane width and unsuitable for HGV's. In urban areas they are often residential loop roads or cul-de-sacs.

Table 5.2: Footway Hierarchy

TABLE 2 - FOOTWAY HIERARCHY		
Category	Hierarchy Description	Description
1 (a)	Prestige Walking Zones	Very busy areas of towns and cities with high public space and streetscene contribution.
1	Primary Walking Routes	Busy urban shopping and business areas and main pedestrian routes
2	Secondary Walking Routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc.
3	Link Footways	Linking local access footways through urban areas and busy rural footways.
4	Local Access Footways	Footways associated with low usage, short estates roads to the main routes and cul-de-sacs.

- > In addition to the footway definitions given in table 5.2 the ONH requires that the presence of schools, hospitals, health centres and areas with a particular concentration of elderly or disabled people be taken into consideration when classifying footway sections. The LBB ONH (Appendix J) has analysed and incorporated relevant risk information in respect of pedestrian activity generation.
- > The overall network length in Barnet is 926km, of which 759km (82%) is managed by the Council. The remainder of the network is either private, managed by Transport for London (A1, A41, A406), or by the Highway Agency (A1(M), M1).
- > The highest carriageway category under LBB management is 3a "Main Distributor Road" with road such as the A5, A598, A411, A1000, A1003, locally referred as main corridors. These account for 8% of the LBB network.
- > The amount of category 3b "secondary distributors" under LBB management represents 20% of LBB carriageway.
- > The vast majority of carriageways managed by LBB are either category 4a "link road" or category 4b "local access road" which represent 72% of the LBB network.
- > The highest category of footway in Barnet is category 1 "Primary Walking Route". This applies to LBB's 19 local town centres. Category 1a "Prestige footway" does not apply. This category referring to major cities such as Oxford Street central London. The location of these town centres together with the footway classification can also be found in Appendix A.
- > LBB manages mostly category 3 "link" and category 4 "local access" footways representing a combined 68% of the LBB boroughs footways.
- > Highways Infrastructure assets are managed through the Confirm database.
- > The Operational Network Hierarchy (ONH) will be reviewed at the start of every financial year by the Street Works & Network Asset Manager to ensure that it provides a true reflection of the network conditions. Information from the claims department will be used as part of this assessment to ensure that the Council is optimising its chances of successfully defending claims for damages. Section 6.2 refers regards inspection frequency and the dynamic review of information.

6. Safety Inspections

6.1 Overview

- > The Council has a duty to inspect and maintain all of the LBB adopted roads. The Section 36 (Highway Act) list of adopted highways roads is maintained, updated and published using the Street Gazetteer.
- > All adopted roads are included in the LBB ONH with update protocol linked to the Street Gazetteer.
- > Safety Inspections are designed to identify all defects likely to create danger or serious inconvenience to users of the network or the wider community.
- > Investigation levels are set for each defect likely to be encountered. Defects meeting these investigation criteria are recorded, risk assessed, categorised, and remedied (if appropriate) according to agreed contractual timescales.
- > Safety inspections are either carried out in a cyclic (according to the LBB inspection regime) or reactive manner (responding to customer enquiry service requests). See Appendix B for examples of the scheduled inspection system and links.
- > A robust process for the identification and correction of safety defects on the public highway allow the council to optimise highway safety for users and minimise the risks of personal injury and/or damage claims against LBB.

6.2 Inspection Frequency (Cyclic)

- > Table 6.1 below shows the inspection frequencies set out for guidance in Well-Managed Highway Infrastructure Code of Practice 2016 for the various asset classes applicable to the LBB network.

Table 6.1: Cyclic Safety Inspection Frequencies by Asset Class (source: CoP)

Carriageway Safety Inspection Frequency (ONH)		
Category		Frequency
3a)	Main Distributor	Monthly
3b)	Secondary Distributor	Monthly
4a)	Link Road	3 monthly
4b)	Local Access	Yearly

Barnet Footway Safety Inspection Frequency (ONH)		
Category		Frequency
1	Primary Walking Route	Monthly
2	Secondary Walking Route	3 monthly
3	Link Footway	6 monthly
4	Local Access Footway	Yearly

- > The COP categories 1 and 2 for highway and 1a for footway have been omitted from the table as the Council is not responsible for any assets fitting these descriptions.
- > The LBB cyclic safety inspection system is informed by the ONH and set out in a detailed electronic annual programme of weekly inspection (beats) for each inspection area. The inspection programme is uploaded and managed via the inspection mobile devices. Examples of the detailed inspection routes are shown at Appendix B.
- > To account for lost staff time and service efficiency there is an agreed tolerance of + / - one week for monthly and + / - two weeks for all other inspections.
- > Safety inspection performance is formally assessed monthly using KPI 1.1
- > The inspection approach is to inspect both carriageway and adjacent footway.
- > Inspecting adjacent sections of carriageways and footways at the same time while aligning the inspection frequencies to that of the highest adjacent asset would put too much pressure on the Council's resources and was not therefore considered to be a viable option.
- > In order to satisfy the inspection requirements set out in the ONH and current CoP, Barnet therefore undertakes its inspection as follow:
 - The 19 town centres identified in Appendix A are inspected on foot once a month. Both carriageway and footway are done at the same time for these inspections.
 - Outside town centres assets are inspected on foot.
 - Walked inspections systematically look at both carriageway and footway at the same time and are carried out by each inspector separately.
 - Secondary distributor roads Cat 3b are adjacent to secondary walking routes Cat 2. As the inspection frequencies of the footway is one third that of the carriageway, every three inspections are done on foot while and the others are driven.
 - A similar approach is taken for link footways and link roads where every other inspections is done on foot.
 - Local access roads and footway have the same frequency and are therefore inspected together on foot once a year.
 - Cycle ways are either walked or cycled according to the relevant frequency.
 - Where there are no footways or safe walking routes, a road may be inspected by car. When inspected by car, two inspectors will be present for safety reasons.
- > Close working relation between the three Senior Highways Inspectors and the insurance team ensures that the classification and associated inspection frequency for assets subject to high claim numbers is adequate to reduce the risk of personal injury accidents and the risk of further claims applying a dynamic review informed by data.

Extract LBB ONH V6 December 2021

5. The dynamic risk review process runs a systems report to identify actual personal injury insurance claims and reactive footway defects for a rolling 12-month period. The process is undertaken in May and November each year and is documented in the process flow chart at Appendix M Database Management Plan. The process uses an initial threshold of two or more insurance claims and/or six or more reactive safety defects per km to inform a specific review by the local inspector of the reasons for the incidents. If corrective action cannot be undertaken at that point in time the process will result in a temporary adjustment to the sections' score which may in turn lead to a temporary increase in its inspection frequency to ensure a follow up inspection within 6 months. This is particularly relevant for annually inspected sections which, if affected, will be inspected bi-annually until further notice.

- > CONFIRM (Maintenance Management Software System) is used to log inspections records and predict the next dates for future inspection. Inspection records are automatically loaded into the database at the end or the start of each working day when the inspector reports back to the office.
- > Although it is possible to produce rigid inspection schedules for inspectors using Confirm, the borough prefers to maintain some flexibility and leave the Inspectors to decide on the most appropriate route to be inspected each day. This allows them to combine the visit carried out for reactive safety inspections with their overall cyclic rota.
- > The three Senior Network Asset Inspectors are responsible for monitoring progress and ensure that the relevant frequencies are maintained over time.

6.3 Inspection Regime (Reactive/Customer Requests)

- > Complaints, reports and requests for maintenance (Service Requests - SRs) from members of the public are received via the The Hub, which log them onto the Confirm database and allocate them a unique reference number.
*The Hub - LBB Customer Care Team and Online Reporting system
- > Requests relating to carriageway potholes are sent to the relevant Highway Inspector.
- > The corporate customer care policy guidance currently requires a response to requests to be sent out within 10 working days.
- > When practical, reactive 'SR' inspections are combined with the cyclic scheduled safety inspections so that the opportunity is taken for that section or area of the network to be reviewed at the same time.
- > ME Emergency/Urgent requests for situations that could be potentially hazardous to highway users will be telephoned directly through to the appropriate Highway Inspector.
- > Intervention action follow the process and guidelines at 6.5.
- > Responses to Customer Service Requests are generated automatically using Confirm. The Senior Highway Inspector oversees the correspondence process and ensures that queries are answered within the corporate deadlines.

6.4 Resource Requirement (Cyclic and reactive)

- > The Council is responsible for maintaining 759km of public highway divided over 21 wards. Inspections are handled by six highways inspectors working in teams of two each covering specified areas. The highway inspectors are supervised by three senior highway inspectors. Refer Appendix D.
- > Table 6.2 below and Appendix A shows the wards allocated to each team of inspectors.

Table 6.2: Ward allocation for cyclic inspection teams

Ward Responsibility for Cyclic Inspections		
Team 1	Team 2	Team 3
High Barnet	Woodhouse	West Hendon
East Barnet	West Finchley	Hendon
Underhill	Finchley Church End	Colindale
Totteridge	East Finchley	Burnt Oak
Oakleigh	Garden Suburb	Mill Hill
Brunswick Park	Childs Hill	Hale
Coppetts	Golders Green	Edgware

- > In order to maximise local knowledge, continuity and assist in monitoring the quality of repairs each team will remain responsible for the same area over time.
- > The Senior Inspection Officer has direct responsibility for the inspection and defect correction process. This includes managing the Highway Inspectors, controlling the budget, and contractors performance. Administrative support is provided to the Senior Inspector to assist him as required.
- > The Senior Inspection Officer co-ordinates leave request so that at least one inspector is present to cover each area on any given day. He also makes sure that each team covers its area on time and arranges for assistance to be provided between team as required to meet the agreed timescales.
- > Selected inspectors will be trained to undertake more detailed post accident investigations and to provide such evidence in court. These inspections will be instigated by the Insurance Claim Manager with strict timescales for completion.

6.5 Safety Inspection Investigatory Levels (Cyclic and Reactive)

- > During the course of their inspections highway inspectors shall observe defects from the following list of items of highway inventory:
 - carriageways
 - pedestrian crossings
 - footways
 - surfacing
 - kerbing
 - ironwork
 - drainage
 - private forecourts
 - grass verges
 - road markings
 - signs/bollards/lights/signals
 - safety fencing and barriers
 - trees and vegetation
 - highway general.
 - private attributes e.g. coal plates, building access hatches, pavement lights. smoke vents etc.
- > Any items presenting a defect equal to or exceeding the investigatory levels set out in Table 6.5 (next page) shall be recorded by the inspector and assessed in accordance with the risk based criteria set out in this Safety Inspection Manual. Defects not meeting the intervention criteria will not be recorded.
- > Where trees are on the highway (footway or footpath), and a tree pit is present, it is considered that where a right of way with a tree pit in place has a width of 1.5 metres or more (not including the tree pit) that is deemed sufficient in terms of passing pedestrian traffic and as such the tree pit does not form part of the "maintainable highway". For this reason, where there is sufficient width on the highway at 1.5 metres to allow passing pedestrian traffic, there are no defect intervention levels in place for tree pits..
- > However, if a highway has a width of less than 1.5 metres for passing pedestrian traffic due to a tree pit, there will be an intervention level of 75mm. this intervention level will only apply to edges of the tree pit which are directly adjacent to a used section of highway e.g. if a dip of 75mm were next to a kerb and posed no risk to pedestrians it would not be considered a defect, if a dip of 75mm or more were directly adjacent to a section of footway which carries pedestrians then it would be considered a defect.

Table 6.5:

Item	Defect	Investigatory Level
Carriageway	pothole/spalling crowning depression rutting gap/crack sunken ironwork	40mm depth 50mm (area as NRSWA Code of Practice) 50mm (area 2 sq.m) 40mm 40mm depth (20mm wide) 25mm level difference
Pedestrian crossing	trip/pothole	25mm depth
Footway	trip/pothole rocking slab/block open joint tree root damage/tree pits sunken ironwork defective coal plates/basement lights etc	25mm depth 25mm vertical movement 25mm width x 200mm length min depth 20mm) 25mm trip 25mm level difference 25mm trip
Surfacing	missing/defective skid resistant carriageway "bubbled" mastic asphalt footway	If present 25mm trip
Kerbing	dislodged loose/rocking missing	50mm horizontally 25mm vertically yes/no
Ironwork	Broken/cracked cover likely to cause a hazard worn/polished cover likely to cause a hazard missing cover leaking cover likely to cause a hazard level difference within framework	If present If present If present If present 15mm
Drainage	missing gully blocked gully likely to cause a hazard broken/cracked gully grating likely to cause a hazard standing water in footway 1 hr after cessation of rainfall standing water in carriageway 1 hr after cessation of rainfall	If present If present If present full width of footway 1m width from kerb

Item	Defect	Investigatory Level
private forecourt	hazardous defect	If present
private attributes	hazardous defect	If present
Grass verge	Rutting	75mm depth
Road markings	faded/worn highway or parking markings	30% loss of effective marking. Overlay height of 6mm.
signs/bollards/ lights/signals	<p>damaged/misaligned item likely to cause a hazard</p> <p>missing item likely to cause a hazard</p> <p>defective item likely to cause a hazard</p> <p>obscured/dirty/faded item likely to cause a hazard</p> <p>exposed wiring</p> <p>missing door to lamp column</p> <p>signal lamp failure</p>	<p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p>
Safety fencing and barriers	item damaged or misaligned likely to cause a hazard	If present
Trees and vegetation	<p>overhanging carriageway</p> <p>overhanging footway</p> <p>obstructing visibility</p> <p>low tree base in footway</p>	<p>exceptional circumstances</p> <p>2.1m height clearance</p> <p>yes/no</p> <p>50mm level difference</p>
Highway general	<p>oil/diesel spillage</p> <p>presence of ice</p> <p>detritus likely to cause a hazard</p> <p>fly tip likely to cause a hazard</p> <p>obstruction likely to cause a hazard</p> <p>scaffolding likely to cause a hazard</p> <p>hoarding likely to cause a hazard</p> <p>defective skip/temporary structure likely to cause a hazard</p> <p>defective reinstatement likely to cause a hazard</p>	<p>300mm diameter area - If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p>

Item	Defect	Investigatory Level
Highway general	defective open excavation likely to cause a hazard	If present
	defective/damaged utility cabinet likely to cause a hazard	If present
	defective/damaged street furniture likely to cause a hazard	If present
	defective/damaged street name plate likely to cause a hazard	If present
	damaged/unstable overhead wires Exposed electrical wires	If present If present
Other danger to the public	anything else considered hazardous or dangerous	If present

- > In regard to defects specified in the above table, particularly those covered under the "highway general" heading, many are the responsibility of individuals or organisations and not the Council. Unless urgent action is required, the Inspector's course of action shall be to pass on the relevant information to the section or department that is responsible for overseeing that particular activity.
- > Highway inspectors will make every effort to identify the person(s) responsible for the defect and draw their attention to both the defect and their responsibilities. If necessary, appropriate temporary action should be taken to protect the public such as minor temporary traffic management.
- > To manage s81 defect notices, preset contacts for the utility providers owning assets within the borough and letter templates are available to allow any logged defects identified on their assets to be reported immediately. S81 defects will be monitored from notification to repair completion by a dedicated resource.
- > Inspectors will check as part of cyclic inspections that items on the public highway for which a licence should have been issued such as of skips, building materials, or scaffoldings are appropriately recorded on the Council's database. They will be able to do so using the information displayed for any given street on their handheld computers. Any unlicensed activity should be reported to the licensing officer for check and eventual enforcement action to be taken against the relevant third party.

6.6 Safety Defects Categorisation, Type, and Response times (Cyclic and Reactive)

- > The CoP suggests that defect categorisation should be done via a risk assessment and proposes the use of a risk calculation matrix to derive a risk score which is then used to categorise the defect. A risk matrix for guidance purposes is referenced at Appendix G.

RE		CARRIAGEWAYS																			
		Excessive unevenness	Potholes The depth of a pothole is covered below. As a general rule, the diameter at the surface level, should be >75mm on cycle lanes and >150mm on carriageways				Loose Material etc	Regulatory Lines - excessive wear	Ironwork - missing, broken, tilting etc	Edge Damage	Unevenness - rutting etc	Displaced road stud, cat eyes and debris									
Network hierarchy	Risk rating	Cycle Lanes	Other Locations	Cycle Lanes	Other Locations	Initial signs of spalling, cracking with visible loss of aggregate	Of sufficient spread and depth to need immediate action	Small accumulations that could become a hazard/fault	White regulatory lines (at junctions) worn so as to detract from their purpose	White and yellow lines worn that still just functioning	Missing ironwork	Cycle lanes	Other Locations	Checked frame or cover, rocking or vibration. Degraded or tilted	Worn, slight unevenness, expected to worsen	Road edge breaking, falling away so as to be potentially hazardous	Road edge extensive cracking, some deterioration. Likely to worsen in short term	Severe unevenness due to rut, bumps, corrugations	Moderate unevenness	Displaced and heaving surface	Heave / loose
Carriageway 3A, 6 & 7	High (in-line with vehicle / cycle path)	1	1	3	3	4	1	4	3	4	1	1	1	3	4	1	4	4	4	1	4
Challenges A, B, C	Medium (adjacent with vehicle / cycle path)	2	2	4	4	4	3	4	4	4	2	4	4	4	4	4	4	4	4	4	4
	Low (other area of carriageway)	3	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4

RE		FOOTWAYS							
		Edgings - excessive rut, trip etc	Ironwork - missing, broken, tilting etc	General Surface	kerbing defects	Loose, lifting etc			
Network hierarchy	Risk rating	Trips >25mm	Missing ironwork	Broken or loose - Trips >25mm and/or broken >150mm	Loose/cracked covers and frames not an immediate hazard	Potholes >25mm deep	Potholes <25mm deep and initial signs of wear and tear, slight heaving, cracking and loss of aggregate	Trips >25mm, open joint 20mm wide and 700mm in length >10mm deep	Bumps, depressions, surface heave, undulations etc
Footways 1A, 2, 4, 5	High (in-line with pedestrian / cycle path)	1	1	1	1	1	1	1	1
	Medium (adjacent with pedestrian / cycle path)	2	2	2	2	2	2	2	2
	Low (other area of footway)	3	4	4	4	4	4	4	4
Footway 4	High (in-line with pedestrian / cycle path)	1	1	1	1	1	1	1	1
	Medium (adjacent with pedestrian / cycle path)	2	2	2	2	2	2	2	2
	Low (other area of footway)	3	4	4	4	4	4	4	4

STREET FURNITURE, VEGETATION AND STRUCTURAL INSPECTIONS											
Furniture defects Prior to replacement or maintenance of any street furniture ensure justification is still warranted						Tree and vegetation defects Unless obvious cases refer to Arboriculture					
Balls, barriers, safety fences etc - excessive defects		Road signs and signals - excessive defects		Useful signs - safety hazard		On highway		Off highway - safety hazard		Building, walls and fence defects Unless obvious cases refer to structural engineer	
Bent, blocked, projecting, missing, timber to rot at high risk	Missing, bent, twisted, lifting, angled alignment, generally worn but, remedial adjustment or replacement	Bent, twisted, projecting to extent that public is put at high risk. Damaged/obscured junction signage where sight displacement is not present	Missing, damaged, faded, worn or obscured so that replacement is needed with less risk to the public dependent on sign height or sign height location	Useful signs showing significant obstruction to passage or vision with clear risk to the public	Useful signs causing some obstruction to passage or vision with less risk to the public	Obvious danger of falling timber, fallen timber causing obstruction to passage or vision considering location and use	Obscuring regulatory road sign or signals, overgrowth obscuring passage, obstruction to vision considering location and use	Obvious danger of falling timber, fallen timber causing obstruction to passage or vision but within safe distance	regulatory road sign or signals, overgrowth obscuring passage, obstruction to vision considering location and use	Buildings, walls etc abutting the highway - safety hazard	Heave, bulging, leaning or signs of decay
1	4	1	4	1	4	1	4	1	4	1	4

Impact	Risk Factor	PROBABILITY				
		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	

RISK FACTOR	RESPONSE CATEGORY	RESPONSE CATEGORY	DESCRIPTION
25	Emergency	Category 1	Correct/repair or make safe within 24 hours preferred, 48 hours maximum. If it is not possible to correct/repair defect within these time periods, a permanent repair should be carried out within 28 days. If there are planned maintenance/improvement works that could result in the defect then it may be left at a "made safe" status. Normally this time period would not exceed 5 working days.
15-20	Cat 1	Category 2	Correct/repair or make safe within 7 days. If it is not possible to correct/repair defect within these time periods, a permanent repair should be carried out within 28 days. If there are planned maintenance/improvement works that could result in the defect then it may be left at a "made safe" status. Normally this time period would not exceed 12 months.
8-12	Cat 2	Category 3	Correct/repair within 28 days unless planned maintenance/improvement works are planned
5-6	Cat 3	Category 4	Normally reviewed during next inspection or resources permit, correct during next available local area works
1-4	Cat 4		

Notes	
These are recommended minimum standards and there is an option for inspectors to increase response levels on specific defects where appropriate taking into consideration defect type, location, road/footway and usage.	All defects involving or resulting from utility company apparatus and/or works should be reported to the New Road and Street Works Act team to contact the company involved to initiate repairs. Failure to act could result in remedial action being taken and costs recovered.
Vulnerability of cyclists must be taken into account when assessing footway and kerb defects.	For defects located on private land or resulting from private property, the owners will need to be contacted to initiate repairs. Failure to act could result in remedial action being taken and costs recovered.
During severe weather and at times of high numbers of defects being recorded it may be necessary to delay or suspend highway safety inspections and response times may need to be extended	

- > The risk assessment is to be based on impact and probability of the risk.
- > Factors considered to categorise defects include the severity of the defect, the type of asset the defect is located on, and the location of the defect on the network. Under this system a 25mm trip hazard on a given footway would be given a different priority level depending on whether or not it is located on the pedestrian desired path. Similarly a pothole exceeding the investigatory level will be given a different priority for treatment based on its location on the carriageway.

- > LBB's Term Maintenance Contract has four categories of safety defects with their own preset correction period (see below). Category 4 is used to record a nil action at that point in time arising from a response inspection.
 - **Emergency (ME)** - completion (or at least make safe) within 2 hours;
 - **Category 1** - completion within 24 preferred, 48 hours maximum;
 - **Category 2** - completion within 7 days;
 - **Category 3** - completion within 28 days
 - **Category 4** - monitor/ no specific timescale
- > Category 1 defects should be corrected or made safe at the time of inspection, if reasonably practicable. In this context, making safe may constitute displaying warning notices, coning off or fencing off to protect the public from the defect. If it is not possible to correct or make safe the defect at the time of inspection, which will generally be the case, repairs of a permanent or temporary nature should be carried out as soon as possible and in any case within a period of 48 hours (this can be reduced to 24hr at the Inspector's discretion). Permanent repair should be carried out within 28 days. Examples of Cat 1 defects are items such as large potholes, obstacle, or trip hazard in the path of vehicles or pedestrians, exposed electrical equipment, and damaged street furniture leaving sharp edges likely to injure users.
- > At the discretion of the officer undertaking the inspection Cat 1 defect can be upgraded to priority ME order for a 2 hour response time. If felt necessary the inspector shall remain at the site to warn highway users of the necessary hazard until the area has been made safe
- > Category 2 defects are those which, following a risk assessment, are deemed not to represent an immediate or imminent hazard or risk of short term structural deterioration. 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.
- > Category 3 is used for defects which do not pose an immediate risk to users due to their nature or location on a given asset but still exceed the borough's intervention level. This category is also used for defects likely to become Cat 1 defects if left untreated until the next cyclic inspection. Examples of Cat 3 defects are items such as obscured direction signs, minor drainage issue, potholes and footway depressions below the intervention level.
- > Category 4 defects are those which do not currently meet the LBB intervention level but are worth noting for potential intervention as part of future overall planned maintenance works.

6.7 Safety Defect Correction - Work Instructions (Cyclic and Reactive)

- > The Council ensures that all safety defect repairs are undertaken in accordance with the correct timescales, frequency, and quality, as failure to do so will severely influence the Council's ability to defend claims.
- > Work instructions for defect repairs are issued directly from Confirm by the highways inspectors. Having identified and categorised a defect, Inspectors choose from a list of preset corrective treatments how the defect is to be corrected.
- > The LBB Direct Labour Organisation (DLO) is currently providing the emergency (ME) call out service for out of hours requirements.
- > The LBB Maintenance Contractor will provide the emergency (ME) call out service Monday to Friday working hours requirements..
- > The Maintenance Contractor provides the Category 1, 2 and 3 responses during in hours service.
- > The contractors carry out the defect correction as per the original instruction. The contractors are responsible for submitting and getting written approval for any variation of instruction in terms of type and quantities of treatment prior to carrying out the works. No variation in committed costs will be accepted post completion.
- > If a repair is defective then a defect notice will be issued to the contractor with instruction to repair, this is at their cost and is required immediately. All defect notices are stored on a register for completeness and review when required.

6.8 Performance Monitoring (Cyclic and Reactive)

- > Performance monitoring of the inspection process is carried out by the Senior Highway Inspectors in two ways.
 - Day to day management and communication with the inspectors
 - Analysis of monthly progress report from the database.
- > A report is produced monthly from the inspection database indicating as a minimum:
 - % of the network inspected to planned schedule (with tolerance) by area
 - % of the network overdue for inspection by area
 - Audit requirements as per relevant KPI's
- > The current suite of KPI's linked to highways inspections are outlined in Re KPI and PI Owners List (2021_22).
- > Payments for safety defect works completed by the contractors are issued on a monthly basis. Ahead of any payments being released a status report is obtained from the database. The report shows the following information for the safety defects issued and corrected in the last calendar month sorted out by category and type:

- Number of safety defects issued
 - ID and value of safety defects rectified on time
 - ID and value of safety defect rectified late
 - ID and value of outstanding safety defects (both within and outside the rectification period)
- > Payment is checked against this report prior to certification.
- > LBB will review the inspection, assessment and recording regime annually to consider:
- Change in legislation or best practice (Code of Practice)
 - Changes to the LBB ONH and network characteristics and use
 - Completeness and effectiveness of data collected
 - Effectiveness of data analysis
 - The need for changes to the inspection regime derived from risk assessment
 - Compliance with legal obligations
 - Network serviceability and condition
 - Opportunities for improvement
 - Service delivery performance
- > Changes to frequency or intervention criteria will be discussed at regular Inspector team meetings and the outcome reported to the Operations Manager. Recommendations for change will be discussed with the Head of Service and the Insurance Claims Manager and managed via the ONH dynamic risk assessment process.
- > The Council will continue to engage with neighbouring authorities in regard to cross boundary arrangements to review road hierarchies across local authority boundaries and compare inspection procedures and where necessary harmonise standards.

6.9 Budgets

- > It is essential that the reactive maintenance budget set out to cover the cost of inspecting and repairing identified designated safety defects is adequate to allow the Council to fulfil the commitments defined in this procedure.
- > Failure to set aside enough money to inspect or repair defects would reduce the Council's ability to defend itself against legal challenges for personal damages and expose it to an unacceptable level of risks.
- > The current annual allowance for defects is 10637 jobs based upon the lump sum costing outlined in the current term maintenance contract with TKJV.
- > Specific contract details and financials will not be included in this document.

6.10 Highway Inspector Training

- > The principle training objective is to ensure quality and consistency of decision making, safety defect interventions and records,
- > The Highway Inspectors and the Senior Highway Inspectors are all required to attend a technical course dealing with safety inspections and the relevant legislations attached to them. Attendees are required to pass a short examination at the end of the course to gain a certificate of competence. The training and examination are renewed every fifth year to ensure that staff's knowledge remains good and up to date with the current legislations and recommendations. Training requirements shall be in line with those set out in the CoP Well Managed Highway Infrastructure 2016.
- > Each Highway Inspector will understand his or her responsibilities, their role in any claims process and take a pride in securing a safe highway for all road users. This should incorporate not only the identification of safety defects but continued vigilance to ensure that the area is kept in a safe condition and that the correct/necessary ? repairs are completed to standard.
- > On top of the required professional knowledge, separate training sessions will be organised in 2021 to assist the team and its managers to migrate from the previous Bentley Exor system to the current Confirm system. [completion scheduled for December 2021]
- > Specific sessions involving the contractors will also be organised to ensure that the requirement of the new procedure are understood by all involved in this process.
- > Specific training requirements over and above that described previously will be identified through the Council's staff development and appraisal process.

6.11 Health & Safety Risk Assessment Method Statement for Safety Inspections

- > All inspections will be carried out in a safe manner in order to protect the inspector and the public. The individual, corporate and management responsibilities are set out in the Council's statement for compliance with the Health and Safety at Work Act 1974.
- > All staff must be aware of and discharge their responsibilities in accordance with the relevant risk assessments for their specific activities.
- > Inspections in Barnet are carried out either individually on foot or in teams of two inspectors when driven.

- > The inspector will wear the appropriate PPE clothing and footwear for the activity, location and potential weather conditions. Where necessary each inspector will be issued with the following:
 - Reflective jacket/vest
 - Waterproof clothing
 - Safety footwear
 - Mobile phone – smartphone ?
 - Handheld data collection device
 - Maps
 - Backup report sheets for use in the event of system failure
 - Inspection manual (HISIM)
 - Measuring wheel
 - Tape measure / measuring board
 - Digital Camera
- > Reflective clothing will always be worn when undertaking inspections
- > Walked inspections should, wherever possible, be carried out from the footway. The recording of data must be carried out from the footway or other safe place
- > When marking out work in the carriageway "Surveying" signs must be displayed at each end of the section of road warning traffic from both directions
- > In very heavy traffic it is essential that marking out be undertaken by two people. The second person will concentrate on safety and be on the lookout for traffic. It may be necessary to defer inspection, such as rescheduling the inspection for a time of day when traffic is lighter. In some circumstances traffic management measures may be required.
- > Inspectors will be made aware that if in any doubt on how to complete the inspection and identification of the works required in a safe manner, they are to discuss the matter with their line manager before proceeding.
- > Under no circumstances should inspection staff handle needles, syringes or other sharp objects.
- > Any instances of racist or obscene graffiti observed shall be reported immediately by mobile phone to the Cleansing Team.

7. Other General Inspections

7.1 Street Lighting Inspections

- > The provision, operation and maintenance of street lighting in LBB is managed through the Street Lighting PFI (Private Finance Initiative) Contract. This includes all inspections and repairs necessary to maintain the specified level of operational lighting and to assist in defending street lighting related claims against the Council.
- > The Service Provider currently carries out night scouts (inspections) of all street lighting apparatus on a weekly basis. All street lighting related emergency call-outs should be attended to within one hour.
- > Lighting level checks are also undertaken on up to 30 roads each month to check the quality of lighting. Further details can be found in the PFI's contract documentation.

7.2 Tree Inspections

- > LBB is responsible for inspecting all trees on highway land as well as any tree that may be overhanging or have the potential to fall on the highway. These are collectively called 'Highway Trees'.
- > Highway Inspectors carry out basic visual assessments of these trees as part of the highway safety inspections and handle directly any issues caused as result of overhanging or overgrown tree on the public highway via the issue of a section 154 notice to the tree's rightful owner. Any other concerns noted by the Highway Inspectors as part their cyclic inspections are reported to the Council's Street Scene Services for further inspection.
- > In parallel to the above the Council's Street Scene Services ensures that all highway trees are subjected to a detailed inspection by a specialist contractor once every three years. A health and safety check of all trees in parks and public open spaces is also undertaken annually by trained arboriculturists.

7.3 Drainage Inspections

- > The general condition (missing or cracked covers, blocked) of road and footway gullies is observed as part of the cyclic safety inspections undertaken by Highway Inspectors.
- > Reactive service inspections are carried out on specific problem sites by the borough's drainage engineer as a result of public complaint or query.
- > The current maintenance regime is managed by the Asset Management team.

7.4 Traffic Signs and Road Markings

- > The general condition of traffic signs, street nameplates and road markings throughout the borough are reviewed using section 6.5 of this Manual criteria by Highway Inspectors as part of the safety inspections. Safety defects interventions are instructed as appropriate

7.5 Highway Use Licensing

- > The Highways Act (HA) gives The Council (LBB), as the Highway Authority, the power to regulate a number of activities on the public highway.
- > Under the HA LBB may issue licences for the erection of scaffoldings, placing of skips and building materials on the public highway and various other licenses under part 9 of the Highways Act 1980. The issuing of these licences allows the Council to co-ordinate such activities with other planned works in the vicinity and ensures that the condition of any asset is not compromised afterward and that highway safety is assured.
- > Highway Inspectors will receive a Highway Licence application and its details from the admin team, they will then review and advise upon suitability.
- > Site inspections for compliance with highway licence requirement are carried out by the Highway Inspectors who ensure that these activities are properly licensed and that the conditions placed on these licenses are adhered to. These visits are recorded on Confirm and reported on site, any enforcement requirements will then be dealt with by the senior inspector alongside the legal team.
- > All past and present licences information is stored in the Confirm database to enable proper co-ordination of activities on the public highway. Highway Inspectors have sight of this information on their handheld computers and check for compliance while carrying out cyclic inspections. Any observed breach in condition is reported to the admin team for remedial actions (which can include the issuing of fixed penalty notices) to be taken.

7.6 Insurance Claims

- > The Highway Inspectors will investigate and respond to insurance claim queries (Service Request logged) as received from the LBB insurance team. Once a claim pack is received, inspectors then have 10 working days to prepare their response and issue back to the insurance team who will assess and decide upon liability.
- > Inspectors will lead on the review and validation of insurance claims – these claims can be things such as damaged cars due to dislodged paving or potholes, slips trips and falls due to cracked paving and other hazards which cause injury or damage as a result of an incident.
- > Accident Report Document (ARD's) - inspectors review the claim and our own information against our inspection records. If a defect is found it will be repaired. ARD's have strict timescales for response and when assessed by the inspector the completed record is submitted to insurance for a decision on liability.

- > Legacy information on inspection records will be kept on Confirm for access should any insurance claims require historic information.
- > Safety inspections are key to insurance claims as they provide a record of our maintenance responsibilities and actions. It is crucial that the inspection regime is adhered to in order to prove the authority has carried out its statutory duties to maintain the highway network.
- > Insurance claim information is used to map any trends or clusters in claim activity and assessed against safety defect information to dynamically consider temporary risk upgrades to the ONH and inspection frequencies.

7.7 Third Party Damage to LBB Highway Infrastructure Assets

Under certain circumstances relating to vehicular accidents and crashes that damage or destroy road restraint systems (vehicular and pedestrian barriers), signs, bollards and lighting columns for example, it may be possible to include the costs of repairs to assets through the third party insurance process. An assessment will be made by the Operations Manager as to the cost benefits of pursuing recovery.

7.8 Vehicular Crossings (of footways)

A clear documented process is in place to request, manage and pay for requests for vehicular crossings.

8. General Summary

This LBB Highway Infrastructure Safety Inspection Manual (HISIM) sets out a clear and managed process and procedure to deliver an effective risk based highway inspection maintenance system. It is an efficient system subject to performance monitoring and is compliant with all key legislation and best practice guidance. It fulfils the Council's statutory duties under the Highways Act 1980.

The HISIM follows the guidance set out in the (Well-Managed Highways Infrastructure Code of Practice October 2016) for highways maintenance management. The HISIM should be read in conjunction with the LBB HIAMP and the CoP..

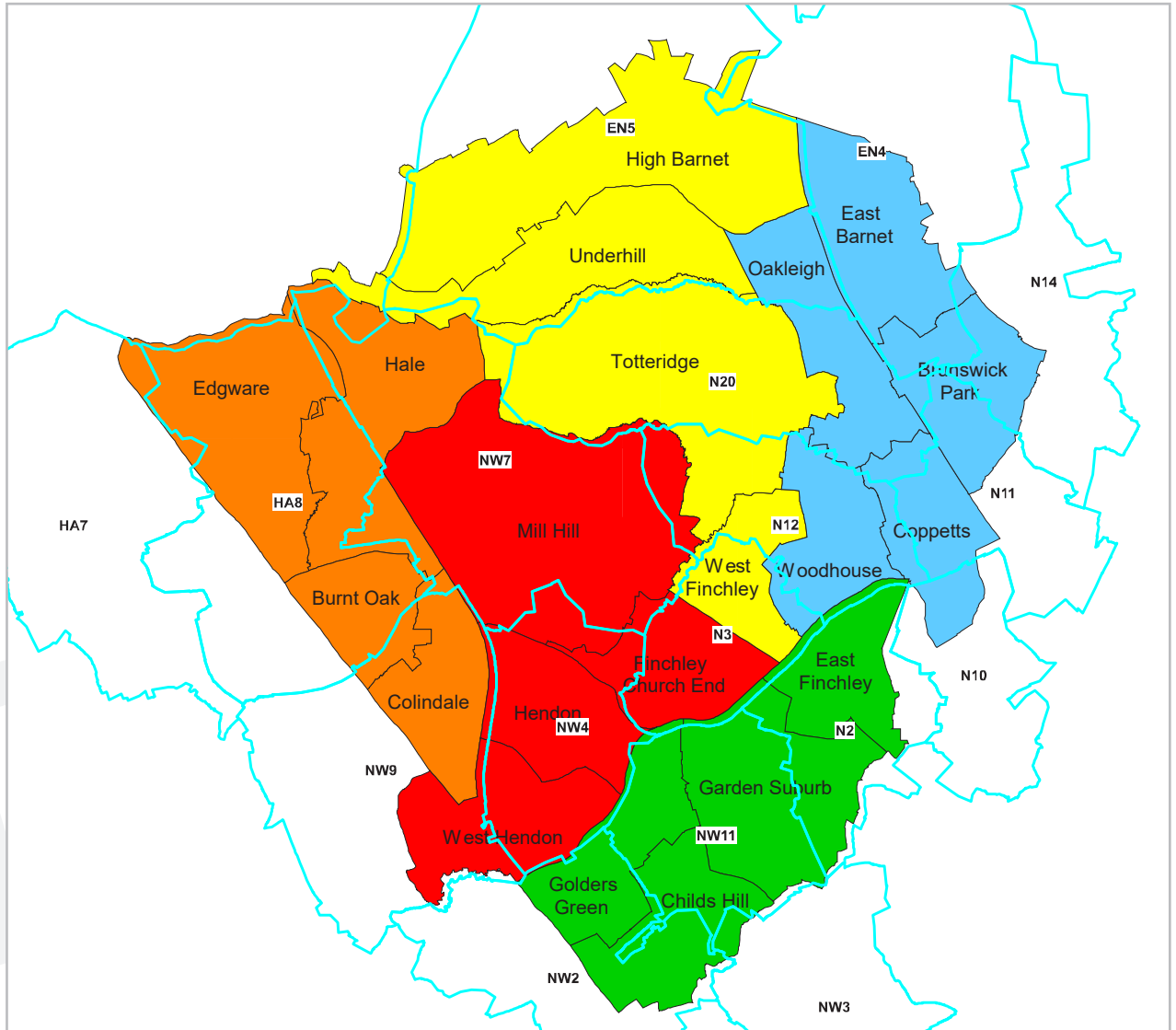
The manual will be reviewed on an annual basis. Reviews will include legislative updates, guidance updates, organisational structure changes, operational changes and any other items which may influence the contents of this manual.



Appendix A

Ward and Town Centres Locations

Appendix A: Ward and Town Centres Locations



Wards by Inspector

- Area 1 Antony Leigh
07939 551328
- Area 2 Marciano (Rocky) Bryan
07984 695943
- Area 3 Andrew Broom
07566 290073
- Area 4 Susan Weyman
07775 016979
- Area 5 Stewart Green
07904526830
- Post Code Boundaries



Appendix B

Inspectors Beat Areas



Appendix C

Operational Network Hierarchy

Appendix C: Operational Network Hierarchy



Operational Network Hierarchy Review and Management Plan

Review Version 6: December 2021 - DRAFT



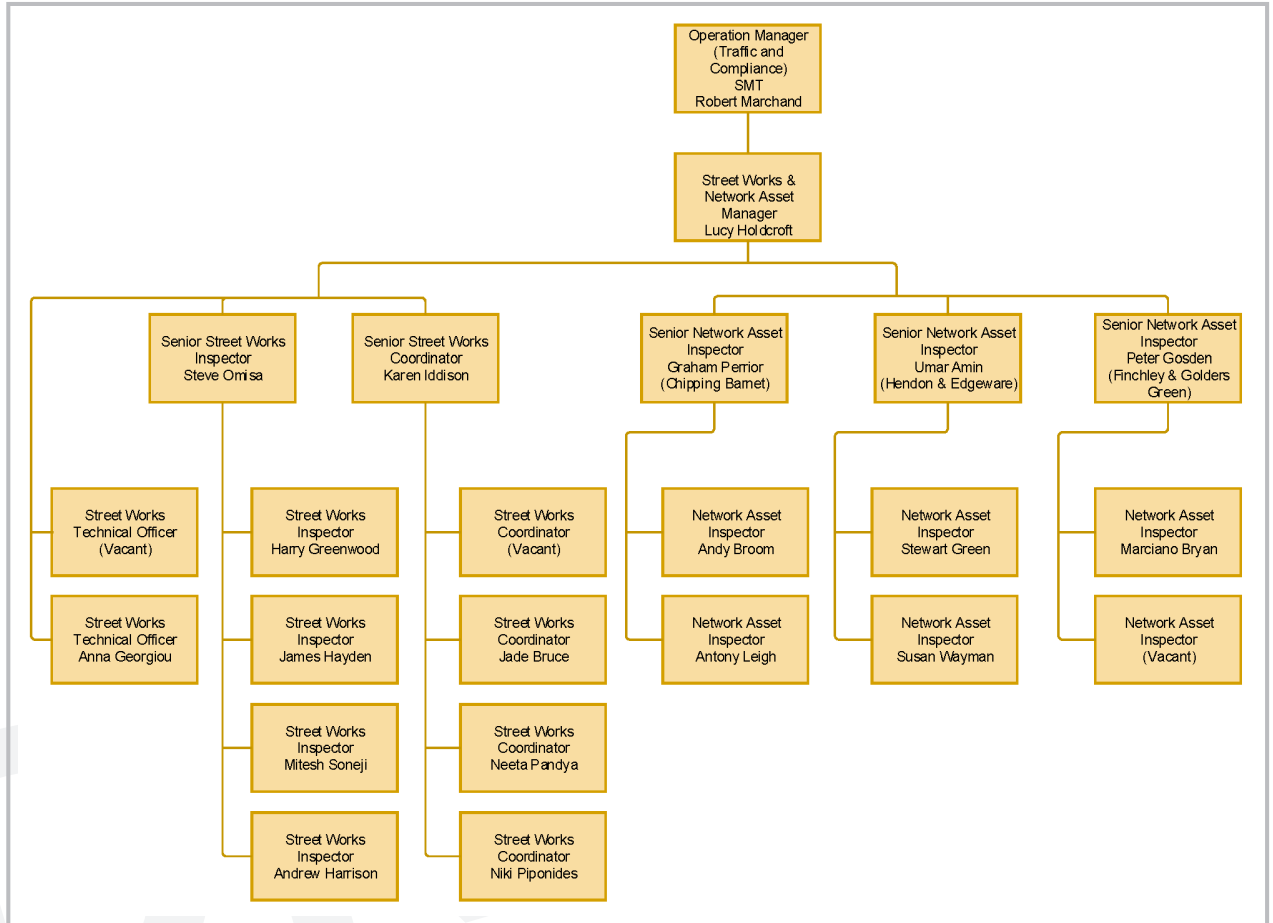
We care about place



Appendix D

Maintenance Team Organogram

Appendix D: Maintenance Team Organogram





Appendix E

Safety Defect KPIs

Appendix E: Safety Defects KPI

HIGHWAYS 1.1	Annual programme relating to Highway Safety Inspections
HIGHWAYS 2.1	Emergency Defects Rectification Timescales completed on time (2 hours)
HIGHWAYS 2.2	Category 1 Defects Rectification Timescales completed on time (48 hours)
HIGHWAYS 2.3	Category 2 Defects Rectification Timescales completed on time (7 days)
HIGHWAYS 2.4	Insurance Investigations completed on time
HIGHWAYS 2.6	Response in dealing with Highway Licence applications

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Appendix F

Well-Managed Highway Infrastructure: Recommendations

Appendix F: Ward and Town Centres Locations

A Summary of the 36 Codes of Practice ('Well-managed Highway Infrastructure') Recommendations

RECOMMENDATION 1 – USE OF THE CODE

This Code, in conjunction with the UKRLG Highway Infrastructure Asset Management Guidance, 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.

RECOMMENDATION 2 – ASSET MANAGEMENT FRAMEWORK

An Asset Management Framework should be developed and endorsed by senior decision makers. All activities outlined in the Framework should be documented.

RECOMMENDATION 3 – ASSET MANAGEMENT POLICY AND STRATEGY

An asset management policy and a strategy should be developed and published. These should align with the corporate vision and demonstrate the contribution asset management makes towards achieving this vision.

RECOMMENDATION 4 – ENGAGING AND COMMUNICATING WITH STAKEHOLDERS

Relevant information should be actively communicated through engagement with relevant stakeholders in setting requirements, making decisions and reporting performance.

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.

RECOMMENDATION 6 – AN INTEGRATED NETWORK

The highway network should be considered as an integrated set of assets when developing highway infrastructure maintenance policies

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.

RECOMMENDATION 8 – INFORMATION MANAGEMENT

Information to support a risk based approach to highway maintenance should be collected, managed and made available in ways that are sustainable, secure, meet any statutory obligations, and, where appropriate, facilitate transparency for network users.

A Code of Practice RECOMMENDATION 9 – NETWORK INVENTORY

A detailed inventory or register of highway assets, together with information on their scale, nature and use, should be maintained. The nature and extent of inventory collected should be fit for purpose and meet business needs. Where data or information held is considered sensitive, this should be managed in a security-minded way.

RECOMMENDATION 10 – ASSET DATA MANAGEMENT

The quality, currency, appropriateness and completeness of all data supporting asset management should be regularly reviewed. An asset register should be maintained that stores, manages and reports all relevant asset data.

RECOMMENDATION 11 – ASSET MANAGEMENT SYSTEMS

Asset management systems should be sustainable and able to support the information required to enable asset management. Systems should be accessible to relevant staff and, where appropriate, support the provision of information for stakeholders.

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.

RECOMMENDATION 13 – WHOLE LIFE / DESIGNING FOR MAINTENANCE

Authorities should take whole life costs into consideration when assessing options for maintenance, new and improved highway schemes. The future maintenance costs of such new infrastructure are therefore a prime consideration.

RECOMMENDATION 14 – RISK MANAGEMENT

The management of current and future risks associated with assets should be embedded within the approach to asset management. Strategic, tactical and operational risks should be included as should appropriate mitigation measures.

RECOMMENDATION 15 – COMPETENCIES AND TRAINING

The appropriate competency required for asset management should be identified, and training should be provided where necessary.

RECOMMENDATION 16 – INSPECTIONS

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

RECOMMENDATION 17 – CONDITION SURVEYS

An asset condition survey regime, based on asset management needs and any statutory reporting requirements, should be developed and implemented.

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.

RECOMMENDATION 19 – DEFECT REPAIR

A risk-based defect repair regime should be developed and implemented for all highway assets.

RECOMMENDATION 20 – RESILIENT NETWORK

Within the highway network hierarchy a 'Resilient Network' should be identified to which priority is given through maintenance and other measures to maintain economic activity and access to key services during extreme weather.

RECOMMENDATION 21 – CLIMATE CHANGE ADAPTATION

The effects of extreme weather events on highway infrastructure assets should be risk assessed and ways to mitigate the impacts of the highest risks identified.

RECOMMENDATION 22 – DRAINAGE MAINTENANCE

Drainage assets should be maintained in good working order to reduce the threat and scale of flooding. Particular attention should be paid to locations known to be prone to problems, so that drainage systems operate close to their designed efficiency.

RECOMMENDATION 23 – CIVIL EMERGENCIES AND SEVERE WEATHER EMERGENCIES PLANS

The role and responsibilities of the Highway Authority in responding to civil emergencies should be defined in the authority's Civil Emergency Plan. A Severe Weather Emergencies Plan should also be established in consultation with others, including emergency services, relevant authorities and agencies. It should include operational, resource and contingency plans and procedures to enable timely and effective action by the Highway Authority to mitigate the effects of severe weather on the network and provide the best practicable service in the circumstances.

RECOMMENDATION 24 – COMMUNICATIONS

Severe Weather and Civil Emergencies Plans should incorporate a communications plan to ensure that information including weather and flood forecasts are received through agreed channels and that information is disseminated to highway users through a range of media.

RECOMMENDATION 25 – LEARNING FROM EVENTS

Severe Weather and Civil Emergencies Plans should be regularly rehearsed and refined as necessary. The effectiveness of the Plans should be reviewed after actual events and the learning used to develop them as necessary.

RECOMMENDATION 26 – PERFORMANCE MANAGEMENT FRAMEWORK

A performance management framework should be developed that is clear and accessible to stakeholders as appropriate and supports the asset management strategy.

RECOMMENDATION 27 – PERFORMANCE MONITORING

The performance of the Asset Management Framework should be monitored and reported. It should be reviewed regularly by senior decision makers and when appropriate, improvement actions should be taken.

RECOMMENDATION 28 – FINANCIAL PLANS

Financial plans should be prepared for all highway maintenance activities covering short, medium and long term time horizons.

RECOMMENDATION 29 – LIFECYCLE PLANS

Lifecycle planning principles should be used to review the level of funding, support investment decisions and substantiate the need for appropriate and sustainable long- term investment.

RECOMMENDATION 30 – CROSS ASSET PRIORITIES

In developing priorities and programmes, consideration should be given to prioritising across asset groups as well as within them.

RECOMMENDATION 31 – WORKS PROGRAMMING

A prioritised forward works programme for a rolling period of three to five years should be developed and updated regularly.

RECOMMENDATION 32 – CARBON

The impact of highway infrastructure maintenance activities in terms of whole life carbon costs should be taken into account when determining appropriate interventions, materials and treatments.

RECOMMENDATION 33 – CONSISTENCY WITH CHARACTER

Determination of materials, products and treatments for the highway network should take into account the character of the area as well as factoring in whole life costing and sustainability. The materials, products and treatments used for highway maintenance should meet requirements for effectiveness and durability.

RECOMMENDATION 34 – HERITAGE ASSETS

Authorities should identify a schedule of listed structures, ancient monuments and other relevant assets and work with relevant organisations to ensure that maintenance reflects planning requirements.

RECOMMENDATION 35 – ENVIRONMENTAL IMPACT, NATURE CONSERVATION AND BIODIVERSITY

Materials, products and treatments for highway infrastructure maintenance should be appraised for environmental impact and for wider issues of sustainability. Highway verges, trees and landscaped areas should be managed with regard to their nature conservation value and biodiversity principles as well as whole-life costing, highway safety and serviceability.

RECOMMENDATION 36 – MINIMISING CLUTTER

Opportunities to simplify signs and other street furniture and to remove redundant items should be taken into account when planning highway infrastructure maintenance activities.



Appendix G

Safety Defect Risk Categorisation Matrix Guidance

Appendix G: Safety Defect Risk Categorisation Matrix Guidance

CARRIAGEWAYS													
Network Hierarchy	Risk rating	Excessive smoothness		Potholes		Loose Material etc		Regulatory Lines – excessive wear		Inverock – missing, broken, lifting etc	Edge Damage	Unweasness – rutting etc	Displaced road stud, cat's eyes and debris
		Cycle Lanes	Other Locations	Cycle Lanes	Other Locations	Cycle Lanes	Other Locations	Cycle Lanes	Other Locations				
Carriageway Urban A, B & C	High (in line with pedestrian / cycle path) Medium (adjacent with vehicle / cycle path) Low (other area of carriageway)	4	1	3	3	4	3	4	3	4	4	4	4
		2	2	4	4	3	4	4	4	4	4	4	4
		1	1	3	3	1	3	4	1	3	4	4	4

FOOTWAYS										
Network Hierarchy	Risk rating	Engine – missing, broken, lifting etc		Kerbing defects		General Surface		Pavement the As a rule, the diameter at the surface level. Should be >150mm		Building, where in less obvious cases refer to a non-consultant engineer
		Broken or loose – (rips, ruts, ripples) or surface damage	Low/raised (not in immediate hazard)	Trips >25mm	Missing inkerock	Loose/cracked	Trips >25mm	Potholes >25mm	Penholes <25mm	
Footways A, B & C	High (in line with pedestrian / cycle path) Medium (adjacent with pedestrian / cycle path) Low (other area of footway)	4	1	1	1	4	1	4	1	4
		2	2	2	2	2	2	2	2	2
		1	1	1	1	1	1	1	1	1

Network Hierarchy	Risk rating	PROBABILITY				
		Very Low (1)	Low (2)	Medium (3)	High (4)	Very High (5)
Impact	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

RESPONSE CATEGORY		RISK FACTOR	
Category 1	Emergency	25	Emergency
Category 2	Cat1	15-20	Cat1
Category 3	Cat2	8-12	Cat2
Category 4	Cat3	5-6	Cat3
	Cat4	1-4	Cat4

RESPONSE CATEGORY		DESCRIPTION	
Category 1	Emergency	Correct/repair or make safe within 24 hours preferred, 48 hours maximum. If it is not possible to correct/repair defect within these time periods, a permanent repair should be carried out as soon as possible. If the defect is not a safety defect, it may be left at a "make safe" status. Normally this time period would not exceed 6 months.	Building, where in less obvious cases refer to a non-consultant engineer
Category 2	Cat1	Correct/repair or make safe within 7 days. If it is not possible to correct/repair defect within these time periods, a permanent repair should be carried out as soon as possible. If the defect is not a safety defect, it may be left at a "make safe" status. Normally this time period would not exceed 12 months.	Building, where in less obvious cases refer to a non-consultant engineer
Category 3	Cat2	Correct/repair or make safe within 28 days unless planned maintenance/improvement works are planned for the area. If it is not possible to correct/repair defect within these time periods, a permanent repair should be carried out as soon as possible. If the defect is not a safety defect, it may be left at a "make safe" status. Normally this time period would not exceed 24 months.	Building, where in less obvious cases refer to a non-consultant engineer
Category 4	Cat3	Correct/repair or make safe within 3 months unless planned maintenance/improvement works are planned for the area. If it is not possible to correct/repair defect within these time periods, a permanent repair should be carried out as soon as possible. If the defect is not a safety defect, it may be left at a "make safe" status. Normally this time period would not exceed 36 months.	Building, where in less obvious cases refer to a non-consultant engineer
Category 4	Cat4	Correct/repair or make safe within 12 months unless planned maintenance/improvement works are planned for the area. If it is not possible to correct/repair defect within these time periods, a permanent repair should be carried out as soon as possible. If the defect is not a safety defect, it may be left at a "make safe" status. Normally this time period would not exceed 48 months.	Building, where in less obvious cases refer to a non-consultant engineer

Notes	
These are recommended minimum standards and there is an option for inspectors to increase response levels on specific defects where appropriate taking into consideration defect type, location, road/footway and usage.	All defects involving or resulting from utility company apparatus and/or works should be reported to the New Road and Street Works Act Team to contact the company involved to initiate repairs. Failure to act could result in remedial action being taken and costs recovered.
Vulnerability of cyclists must be taken into account when assessing footway and kerb defects.	For defects located on private land or resulting from private property, the owners will need to be contacted to initiate repairs. Failure to act could result in remedial action being taken and costs recovered.
During severe weather and at times of high numbers of defects being recorded it may be necessary to delay or suspend highway safety inspections and response times may need to be extended	



Appendix H

LBB Asset Inventories

Appendix H: LBB Asset Inventories

Refer CONFIRM System for details and reports.

DRAFT



Appendix I

Document Review Table

Appendix I: Document Review Table

SECTION	REVIEW COMMENT	ACTION/UPDATE
1. Forward	Mainly text changes Removal of information on claims expenditure proposed	Obtain client approval for changes
2. Introduction	Mainly text changes	Obtain client approval for changes
3. Legislative Standards	Some text changes Added HIAMP as key policy reference Added clear link between HISIM and the stand alone ONH document to ensure document control and key document that drives inspection frequencies based on risk	Obtain client approval for changes Formal update December 2021 V6 ONH. Create link in electronic HISIM
4. Record Keeping	Some text changes	Obtain client approval for changes
5. Asset Inventory & Collection	Some text changes Propose clearer link to all asset inventory records eg. to those held in MMS- CONFIRM and other asset databases for Street Lighting and gullies Reference part of the ONH that sets out system for Insurance risk management – dynamic review temporary upgraded risk. Could be an additional appendix to help illustrate example of process in place to discuss with and confirm to Inspectors and CONFIRM.	Obtain client approval for changes
6. Safety Inspections	Some text changes Text changes needed to remove 'discussional' points – final version just needs the LBB system Key confirmation needed as to operational use of the Blue Books for defined inspection routes. Also needs conformation of whether the risk matrix is being used as a guide by inspectors. Propose addition of an Appendix to show the actual inspection team set and names/quals etc.	Obtain client approval for changes
7. Other General Inspections	Some text changes Sections to be added in to cover Third Party Damage and Vehicular Crossings	Obtain client approval for changes
8. General Summary	Text changes	Obtain client approval for changes

SECTION	REVIEW COMMENT	ACTION/UPDATE
APPENDIX A	Insert the latest Ward/Inspector area map	Obtain client approval for changes Agree latest best map image for Ward boundaries and Town Centres
APPENDIX B	Insert example of defined weekly routes and if needed in electronic format links to the 5 x Area Blue Books	Obtain client approval for changes
NEW APPENDIX C	insert extract from ONH and electronic link as critical relationship with the HISIM	Obtain client approval for changes
NEW APPENDIX D	Insert the LBB Maintenance Team organogram General move to use this document to keep in one place and document control key details.	Obtain client approval for changes
NEW APPENDIX E	Insert KPI information	Obtain client approval for changes
NEW APPENDIX F	Insert Well Managed Highway Infrastructure: A Code of Practice 2016 Key Recommendations	Obtain client approval for changes
NEW APPENDIX G	Insert the existing Re. Safety Defect Risk Categorisation Matrix Guidance	Obtain client approval for changes
NEW APPENDIX H	Insert summary of LBB H/way Infrastructure Asset Inventories	Obtain client approval for changes

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