

Tony Smedley Version 1.0



Councillor Seema Chandwani Cabinet Member for tackling inequality and resident services

Highways play a pivotal role in our daily lives. Whether we are working from home, commuting to work, taking exercise or meeting family and friends - we all rely upon welcoming and accessible streets and public realm.

Haringey is one of London's best-connected boroughs and the local highway network is - and will continue to be well used by our residents, businesses and by people from across the city and beyond.

This strategy sets out how the Highways service will deliver against the Council's key economic and environmental priorities taking into consideration customer needs, asset condition and value for money in the deployment of available resources.

In addition, this strategy also clarifies the progress made to date in moving towards our longer-term objective of making our highway network the best in London.

It is necessary that we keep up the investment in our streets and continue to press forward with our aim to ensure that Haringey has a high quality and safe highways with a reliable public transport system that is accessible to all.

HAMS MODULE I - EXECUTIVE SUMMARY

Overview... Haringey manages and maintains the highway assets falling within our 355km of highway network. With responsibility to ensure the highway assets are fit for purpose and able to fulfil their function in an efficient and sustainable manner.

Haringey's vision aims to enhance our public space, improve residents' experience and quality of life, and develop a truly unique Haringey, which will reshape the way that people travel in the borough.

To achieve this, Haringey has identified a number of corporate aims relevant to our highways, within the <u>Mayor's Transport Strategy</u> <u>2018</u> such as:

- A well-maintained road network that is less congested and safer.
- To maintain and enhance our road network, making it best in class in London.

These are achieved through a policy supported by objectives to ensure focus is kept on what matters most to Haringey in managing highway assets and the community's needs. Haringey has adopted several asset management practices to ensure the largest benefit for the whole community is achieved. Asset management best practices require a look into long-term investments to make best use of resources and ensure the right interventions are implemented at the most effective time, to ensure a safe highway, a statutory requirement.

Overall performance... Haringey manages our network performance through performance indicators, which are aligned to and contribute towards achieving the Council's corporate vision and objectives laid out in the Mayor's Transport Strategy. Performance management demonstrates effective use of the Council's budgets.

Investment... Through the modelling of investment strategies, Haringey determined that the current condition of the highway assets create a backlog of around £49.7 million. Over 10 years, Haringey would need annual funding of £6.75 million to maintain the desired condition and reduce the backlog each year to the desired level.

Engagement... Haringey engages with a number of key stakeholders to inform our decision processes. This ensures the social and economic benefit of the use of the road network is recognised. Such consultations help establish and prioritise an annual works programme considering the stakeholder's most important considerations.

Progress... Haringey is determined to develop and implement a continuous improvement programme to enhance our asset management processes, systems & data, and support effective delivery of our desired asset management outcomes. These outcomes will be reported periodically to key stakeholders, drawing together progress, performance and investment impact.

HAMS MODULE II – CONTENTS

MODULE A	CONTEXT	V1.0	October 2022
	Setting out the parties, documents & reporting processes involved in managing highway assets.		
MODULE B	ASSET MANAGEMENT FRAMEWORK	V1.0	October 2022
	Explaining the structure behind the asset management principles applied.		
MODULE C	ASSET KNOWLEDGE	V1.0	October 2022
	Collecting, storing and managing data.		
MODULE D	MAINTENANCE STRATEGY	V1.0	October 2022
	Explaining the approach to maintenance over the lifetime of assets.		
MODULE E	WORKS PROGRAMMING & PRIORITIES	V1.0	October 2022
	Developing the programme of works that will be delivered.		
MODULE F	FUNDING & EXPENDITURE	V1.0	October 2022
	Identifying funding sources and historical expenditure.		
MODULE G	INVESTMENT STRATEGIES	V1.0	October 2022
	Understanding the impact of different levels of investment.		
MODULE H	PERFORMANCE MANAGEMENT	V1.0	October 2022
	Establishing goals for asset management performance that can be delivered.		
MODULE I	CUSTOMER ENGAGEMENT	V1.0	October 2022
	Elaborating on existing communication channels to ensure asset management meets the needs of		
	different stakeholders.		
MODULE J	SERVICE DELIVERY	V1.0	October 2022
	Detailing expectations and responsibilities of service providers.		
MODULE K	DESIGNING FOR MAINTENANCE	V1.0	October 2022
	Incorporating maintenance considerations into decision-making processes during the design of		
	highway schemes.		
MODULE L	SUSTAINABLE HIGHWAYS MAINTENANCE	V1.0	October 2022
	Committing to running environmentally friendly highways.		
MODULE M	FLOOD AND WATER MANAGEMENT	V1.0	October 2022
	Considering the impact of flooding on highway assets.		
MODULE N	NETWORK RESILIENCE	V1.0	October 2022

	Including managing the highway network in times of extreme weather and other emergencies.		
MODULE O	IMPLEMENTATION PLAN	V1.0	October 2022
	Plan for implementing asset management and maximising benefit.		

HAMS MODULE A - CONTEXT

What... Asset Management is a best practice approach to maintaining highway infrastructure assets. Long-term investment is needed to deliver Haringey's vision of a road network that is well maintained, safer and less congested.

Haringey seeks to optimise resource allocation for the maintenance and operation of highway assets. Using a practical approach, and prioritised investment, the appropriate interventions – whether reactive or proactive – can be implemented in a timely manner to ensure a safe highway.

Why... As Haringey looks to maintain and enhance our road network, associated spending of public money must demonstrate value and be aligned to the needs of residents, local businesses and visitors. To help achieve best value, Haringey strives to be a Council that engages effectively with residents and businesses and demonstrates a clear understanding of community needs by using feedback to inform decisions.

By ensuring key facilities have the right level of accessibility and are maintained to a safe standard Haringey will satisfy our statutory duties as set out in the Highways Act (1980) and other legislation (Table A1). With a long-term investment plan, Haringey can schedule maintenance work to be more cost effective through a combination of surface treatments and major resurfacing works e.g. potholes and footway defects. The economies of scale of such maintenance works drives down the whole life cost of maintaining the highway, as well as extending the life of the asset.

Carriageway assets: A typical $1m^2$ pothole costs around £81 to repair (including management costs), while it costs around £19/m² for single course preventative treatments and £41/m² for deeper treatments to resurface a road to last for 10-25 years.

Footway assets: A typical $1m^2$ footway defect costs around £164 to repair reactively, while it costs around £88/m² to $111/m^2$ to resurface a footway, a significantly longer lasting treatment.

Other assets that are essential for the operation and function of Haringey's highway network include: highway structures, street lighting, street furniture, cycleways, highway trees, grass verges and drainage.

Who... The responsibilities for the 'Context' module lie with:

Statutory duty	Head of Highways and Parking
Overall reporting	Group Engineer, Highways and Maintenance
Updating & reporting module	Team Manager, Highway Improvements

How... Through reviewing guidance and tools developed by the DfT, HMEP, UKRLG, IAM and ISO55000; a global standard for asset management, Haringey can assess how best to implement asset management. Haringey can then adapt an approach to reflect council policies and objectives.

Reporting... To ensure investment and outcomes remain effective, this HAMS provides a suite of measures to explore and demonstrate success or otherwise. From this, improvement actions can be developed, and benchmarked with other London Boroughs.

Success Measures... A dynamic asset management approach to managing Haringey's highway assets to demonstrate continuous improvement, and a drive towards maintaining the Council's highway network efficiently. Aligned with investment planning, this approach will deliver demonstrable benefits to the

achieving community, performance improvement targets and maximising the benefit of capital investment and revenue expenditure.

The following activities will be essential to measure the efficacy and justifiable benefit of asset management:

• A periodic Asset Management Maturity Assessment (AMMA) and the associated reporting to ensure progress towards the stated objectives.

• Regular monitoring of progress against key targets.

Reviewing and monitoring processes should ensure highway aims and objectives remain aligned with corporate and political aims. The relevant modules within the HAMS will be revised as required to reflect any changes.

Further Information:					
HMEP/UKRLG – Maintaining a Vital Asset					
ISO55000 – Asset Management					
UKRLG – Highways	Infrastructure	Asset			
Management Guidance Document					
UKRLG – Well-managed Highway Infrastructure					

Legislation	Main Local Authority duties		
Highways Act 1980	 To maintain highways maintainable at public expense. To take such steps as considered reasonable to prevent snow and ice endangering the safe passage of pedestrians and vehicles over public roads. To enable new roads to be provided to facilitate redevelopment. To facilitate the adoption of new highways. To deal with encroachment and obstruction on the highway. To deal with illegal and unauthorised signs. To issue permits for utilities, skips, hoardings, temporary closures and other authorised occupation of the highway. To ensure the construction of vehicle crossings meet council policies and standards. To deal with illegal parking on verges and footways 		
Traffic Management Act 2004	 To ensure the expeditious movement of traffic on the road network and those networks of surrounding authorities. To manage the Highway Register. 		
New Roads and Street Works Act 1991	To make new provision with respect to street works.		
Flood and Water Management Act 2010	 To improve flood risk management and the way we manage our water resources. To adopt a leading role for local authorities in managing local flood risk (from surface water, ground water a ordinary watercourses). 		
Wildlife and Countryside Act 1981	• To comply with environmental and countryside when undertaking highway maintenance operations.		
The Local Government Act 2003	To adopt best value practices.To adhere to the defined statutory framework of BVPI.		

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Legislation	Main Local Authority duties
The Right of Way 1990	The construction, maintenance, and repair of rights of way, as well as the provisions for addressing hazards or obstructions on rights of way.
The Environmental Protection Act 1990	To keep sidewalks clear of litter, overgrown vegetation, and waste to ensure that footways are not blocked or obstructed.
The Equality Act 2010	To ensure that their footway network and other infrastructure is accessible to all users, including those with disabilities.
The Land Drainage Act 1991	The LA has powers to serve enforcement to riparian owners which require that an ordinary watercourse is maintained by its riparian owner.
The Electricity at Work Regulations 1989	To construct, maintain, and operate systems so far as is reasonably practicable to prevent danger
The London Local Authorities and Transport for London Act 2013	• The power to affix traffic signs and street lighting to a building (but not theatres), provided compliance the notice requirements set out in this Act.
The Planning (Listed Buildings and Conservation Areas) Act 1990	The power to designate areas of special architectural or historic interest as conservation areas.
The Traffic Regulation Act 1984	 To design, install, and maintain road signs that are clear and easy to understand. To establish penalties for unauthorised alteration or removal of road signs and for disobeying traffic signs or signals.
The Traffic Signs Regulations and General Directions 2016 (TSRGD)	Conform with the regulations and standards set in this act for the design, placement, maintenance of road markings and signs.
The Road Traffic Act 1988	• To establish penalties for disobeying traffic signs and signals, ensuring compliance with the rules and regulations of the road network.
The Road Traffic Regulation Act 1984	To make sure traffic moves freely and quickly on their roads. This Act gives powers to local authorities to manage parking controls, coordinate street works and enforce some traffic moving offences.
The Wildlife and Countryside Act 1981	To complete an assessment of whether a tree is likely to support a protected species before any tree work is carried out.
The Town & Country Planning (Tree Preservation) (England) Regulations 2012	Powers to place a Tree Protection Order on a highway tree.

Table A2: Ownership and reporting of modules.

Medule	Deeneneikle	Manatan	Next	Reporting	
Module	Responsible	Version	Review	How	When
A Context	Group Engineer, Highways and	V1.0	2023	Mayor's Transport Strategy, 2018	-
	Maintenance			Haringey HAMS	Periodically
B Asset Management Framework	Group Engineer, Highways and Maintenance	V1.0	2023	-	-
C Asset Knowledge	Highways Maintenance and Highway Improvements Managers	V1.0	2023	Module H – Performance Management	Periodically
D Maintenance Strategy	Group Engineer, Highways and Maintenance	V1.0	2023	Module G – Investment Strategies	Periodically
E Works Programming &	Highways Maintenance and Highway	V1.0	2023	Highways Works Plan	Annually
Priorities	Improvements Managers			Sustainable Transport Works Plan (STWP)	Annually
F Funding & Expenditure	Highways and Traffic Manager	V1.0	2023	Haringey HAMS	Ongoing
G Investment Strategies	Highways and Traffic Manager	V1.0	2023	Business Case	-
				Investment Modelling	Annually
H Performance	Group Engineer, Highways and	V1.0	2023	Asset Lifecycle Plan	Ongoing
Management	Maintenance			Performance Management Dashboard	Annually
I Customer Engagement	Corporate Services	V1.0	2023	Public Communications Plan	Annually
				Internal Communications Plan	Annually
J Service Delivery	Highways and Traffic Manager and Strategic Procurement	V1.0	2023	Procurement Strategy	Ongoing
K Designing for	Group Engineer, Highways and	V1.0	2023	Streetscape Manual, Local Area	Ongoing
Maintenance	Maintenance/Group Engineer Traffic			Streetscape Design Manuals. Highways	
	and Parking			Term Contract Specifications	
L Sustainable Highway	Group Engineer, Highways and	V1.0	2023	Term Works Contract procurement	After 2025 if not
Maintenance	Maintenance/ Strategic Procurement				extended
M Flood and Water	Principal Engineer, Flood & Water	V1.0	2023	-	-
Management	Management				

N Network Resilience	Network Manager, Group Engineer, Highways and Maintenance/ Highway Maintenance Manager	V1.0	2023	Emergency Management Plan Warning, Informing and Alerting Plan	Ongoing
O Implementation & Improvement Plan	Group Engineer, Highways and Maintenance	V1.0	2023	Improvement Action Plan	Ongoing

MODULE B – ASSET MANAGEMENT FRAMEWORK

What... The AM framework represents the structure of the current approach to asset management adopted by Haringey. It provides a common reference point for all personnel engaged in highway maintenance activities about AM principles applied. Hence, the framework informs on the activities and processes required to develop, document, and continually improve asset management practices.

Why... The AM framework covers all aspects of asset management, explaining what is to be maintained, the reason why and processes involved. It allows Haringey to establish highlevel drivers for maintaining highway assets, linking corporate objectives to operations and delivery. As such, it applies a performance-based approach to setting service levels that seeks to maximise investment by concentrating on customer needs, for example minimising disruption, improving the street scene, and contributing to safety.

Who... The responsibilities for the 'Asset Management Framework' module lie with:

Statutory duty	Highway and Traffic Manager
Overall reporting	Group Engineer, Highways and Maintenance
Updating & reporting module	Principal/Engineers

How... The structure of the asset management framework outlined in Figure B1 shows how Haringey's highway policy, strategy, plans and procedures would link together to achieve visibility and clarity of the key driving factors in maintaining a sustainable highway asset.

The framework's key components are:

 Highway Policy – A high level summary within the transport strategy, with political input that sets out the corporate objectives.

- Asset Management Strategy This establishes the high-level drivers for maintaining the asset, and links corporate objectives to delivery.
- Asset Plan Building on the foundations of the strategy, this provides the 'what' and 'how' for managing each asset.
- Operating Policies & Procedures The operating policy sets out the assetspecific goals, which link to the highway objectives and in turn the corporate goals. The operating procedure then outlines how each goal will be achieved.

Reporting... This HAMS provides a concise and accessible reference for external parties interested in how Haringey maintains local highway assets.

This HAMS will be regularly reviewed and updated when triggered by a change in policy, procedure, or an update to the Code of Practice. .

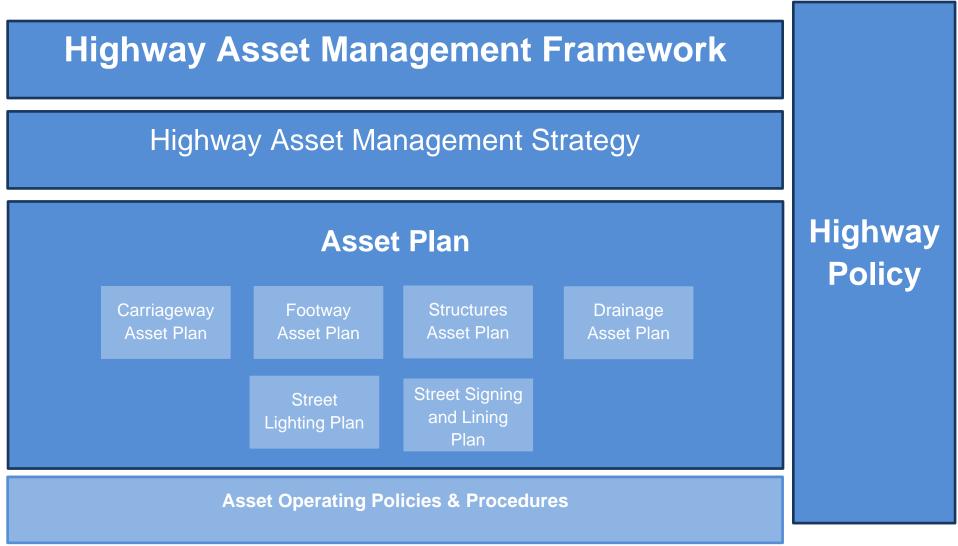
Success Measures... The recognition and adoption of this asset management approach will be reflected in other council documents and measured improvements to the highways network.

Further Information: HMEP/UKRLG – Maintaining a Vital Asset

ISO55000 – Asset Management

UKRLG	_	Highways	Infrastructure	Asset
Managen	nent (Guidance Doo	<u>cument</u>	
UKRLG – Well-managed Highway Infrastructure				
IHE – Well Managed Highway Liability Risk 2019				





MODULE C – ASSET KNOWLEDGE

What... As the Highway Authority, Haringey owns, and is responsible for, the repair and maintenance of all assets that form part of the public highway. The safety of the highway network is the Council's responsibility, which means that Haringey has a duty to inspect and repair roads, pavements and highway structures, and ensure that street lighting and drainage systems work effectively.

Asset knowledge comprises inventory and condition data for the highway assets Haringey is responsible for. To assess, analyse and report performance, progress, and future need, asset managers require regular and accurate collection and maintenance of asset data.

Why... Asset data is required to enable Haringey to undertake the following processes:

- Monitor and report on the condition of the highway network.
- Assess the expected lifespan of individual assets or asset components.
- Evaluate performance indicators.
- Model future maintenance options.
- Identify future investment strategies.
- Investigate and manage risk.
- Develop short- and long-term forward works programmes.

Managing asset data is crucial for the prosperity of the borough, enabling the safe and free movement of people and goods through walking, cycling, driving or on public transport services.

Who... The responsibilities for the 'Asset Knowledge' module lie with:

Data collection	Highway Improvements
	Manager
Data management	Highway Improvements
Updating & reporting	Manager
module	Principal/ Senior
	Engineers

How... It is essential to ensure data collected and held can be trusted and remains current to support performance reporting and decisionmaking.

Haringey adopts a strategic approach to the collection of data to ensure the same data can be used for multiple tasks and that the level of detail captured meets the needs of the authority while providing value for money. Table C1 provides an overview of the data collected and the resources used.

It is important for Haringey to collect and manage asset information in line with changes in innovation and in the use of new, costeffective techniques on the market. Liaison with neighbouring local authorities helps Haringey achieve the best value for services provided and aligns with the Code of Practice on adopting a common approach to asset management for example benchmarking rates and data collection methods.

Reporting... Haringey uses the asset inventory shown in Tables C2 and C3 to quantify the extent of highway assets. This data is then used to feed into other HAMS modules and delivery plans to report on asset performance, including module H – Performance Management and module I – Customer Engagement.

Success Measures... Apart from feeding into other HAMS modules, asset knowledge helps Haringey to support meeting statutory requirements, especially with regards to making effective and informed decisions.

Further Information:				
Highway Infrastructure	Asset Management			
Guidance document, HME	<u> P – UKRLG, 2013</u>			
ISO55001 – Requirements of Asset Management				
<u>Systems</u>				
UK Pavement Management System (UKPMS)				
UK Roads Liaison Group -	- Codes of Practice			

Table C1: Haringey's asset condition assessment.

Asset Group	Asset Type	Type of Survey	Network Coverage	Frequency	Service Provider	Storage System
Carriageways	Principal (A) Roads	Visual AI (LoHEG)			Vaisala	
		SCANNER (LoHEG)	100%	Annually	PTS	
		SCRIM (LoHEG)			PTS	
	Non-Principal (BCU) Roads	Visual Inspection Surveys	100%	Periodic	Specialist Consultant	CONFIRM
Footways	All Footways					
Highway	All Structures	Principal Inspections	100%	Every 6 years		BridgeStation
Structures	All Structures	General Inspection	100%	Every 2 years	Network Rail &	
	All Structures	Superficial Inspections	100%	Annually	Others by Tender	
	Principal (A) Road Network	Load Assessments	As required			
Drainage	Gullies	Cyclic Cleansing (High)	16%	Every 6 months		
		Cyclic Cleansing (Medium)	51%	Annually	Highway Works Contractors	CONFIRM
		Cyclic Cleansing (Low)	33%	Every 2 years		
	Pipes / Carrier drains	CCTV	As	required	Highway Works Contractors	Saved locally
	SuDS Features	Inspections	100%	Every 6 months	Highways & Haringey Parks	-
Street Lighting	Lighting Columns	Night-time Inspections	100%	Every 2 weeks	Highway Works Contractor &	CONFIRM
		Electrical Testing	100%	Various	External Specialist	
		Structural Testing	100%	Various	Consultants	CONFIRM

October 2022 Version 1.0

Street Furniture	All Street Furniture	Routine Safety Inspections	100%	Various	Highways	CONFIRM
Highway Trees	All Highway Trees	Routine Safety Inspections	100%	Various	Haringey Parks	CONFIRM

Table C2: Haringey's carriageway and footway asset inventory.

Asset Group	Asset Type	Quantity
Carriageways	Principal Classified Roads (A roads)	40 km
	Non-Principal Classified Roads (B & C roads)	42 km
	Unclassified roads (U roads)	273 km
	TOTAL	355 km
Footways	Prestige Walking Zones (Category 1A) & Primary Walking Routes (Category 1)	70 km
	Secondary Walking Routes (Category 2)	85 km
	Link Footways (Category 3) & Local Access Footways (Category 4)	534 km
	TOTAL	689 km

Table C3: Haringey's street lighting, highway structures and drainage asset inventory.

Asset Group	Asset Type	Quantity	Asset Group	Asset Type	Quantity
Street	eet Streetlights 14,858 no. * Public Highways	Pedestrian subway / Underpass	1 no.		
Lighting	Illuminated Bollards	5 no.	Assets only.	Retaining Wall	4 no.
	Illuminated Signs	2,113 no.		TOTAL	52 no.
	Other	751 no.		High Priority Gullies	2,534 no.
	TOTAL	17,727 no.	Drainage	All Other Gullies	13,240 no.
Highway	Highway Bridge	39 no.		Pipes	50 km
Structures*	Culvert	1 no.		SuDS	41 no.
	Footbridge	7 no.		TOTAL Gullies	15,774 no. 50 km

MODULE D – MAINTENANCE STRATEGY

What... A maintenance strategy is an approach to managing common asset groups with optimised treatments. These treatments are decided by finding the most efficient means of balancing resources to meet performance targets, based on whole-life-cost analysis.

Why... To create a suite of treatment options that can be drawn upon for the asset type and condition. Benefits include:

- Optimised allocation of resources allowing the Council to maximise value for money.
- A consistent aesthetic and performance standard across Haringey.
- Benchmarking and comparing new treatment options on the market.
- A better understanding of how assets and treatments behave over time.

Who... The responsibilities for the 'Asset Management Framework' module lie with:

Defining strategy & hierarchy	Group Engineer, Highways and
	Maintenance
Whole-life-costing	Group Engineer,
	Highways and
	Maintenance
Updating & reporting module	Principal/ Senior Engineers

How... Haringey uses a risk-based approach to asset management based on decision trees applied to determine the most suitable treatment type to be adopted for common asset groups, as shown in Table D1.

This decision demonstrates the various criteria considered when selecting a maintenance treatment. For carriageways and footways these are:

- Road hierarchy, which represents a specific traffic loading / priority category.
- Construction type, which determines the likely defects to be present.
- Predominant defect visible, which establishes the depth of the required treatment.
- Profile adequacy, which determines whether vertical realignment is necessary.
- Cumulative defect size, which outlines whether the treatment should be carried out under the Council's reactive or planned maintenance procedures.

The various treatment options are assessed for the best whole-life-cost solution, based on performance and cost. This approach lends itself to ensuring different strategies for different asset types provide a 'right for asset' approach to long-term maintenance, accounting for local context.

For structures, Haringey's maintenance strategy is based on each structure's condition from the inspection survey results index (BCI). This helps to justify the investment required to improve the structure stock to the required level and maintain it at that level.

For drainage, Haringey operates a risk-based approach to the management of its drainage assets. Having banded the gullies by High, Medium, Low a routine cleanse regime was developed based on operational and financial considerations.

For street furniture assets, a full maintenance strategy is under development to ensure the best outcomes and long-term results are achieved.

For street lighting, replacement programmes for lanterns and columns are informed from a number of factors centred around electrical and structural condition testing (currently in year 5 of 6-year programme), visual inspections, lighting levels, road hierarchy, and regeneration to ensure that investment is targeted based on needs. The current maintenance strategy includes cast iron column refurbishment as well as a new dimming procedure and policy to bring energy costs down.

Reporting... Maintenance strategies are reviewed periodically, or when new treatment options come on the market. They are

investigated through investment modelling exercises and business cases as an integral element of HAMS module G - Investment Strategies.

Success Measures... To be able to demonstrate an on-going reduction in the whole-

life-cost of asset maintenance, using the most efficient maintenance strategy for the particular asset group.

Further Information:

Streetscape Design Guide

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Asset	Safety Intervention	Temporary Repair	Permanent Repair	
Carriageways	50mm pothole		Saw cut and patch with hot applied material	
Cycle Lanes	25mm pothole	Cold applied material Low cost, low life expectancy.	By hand – medium cost, medium life expectancy.	
	25mm pothole		By machine – high cost, high life expectancy.	
Footways	25mm movement in slab / block	Make safe	Remove and relay slab / block	
Asset	Subgroup	Preventative Intervention	Major Intervention	
Carriageways	A Roads	Plane and Inlay - Deep Treatment – 80mm to 100mm	Partial reconstruction – 120mm to 150mm	
/ Cycle Lanes	BCU Roads	Plane and Inlay – Shallow Treatment – 40mm Plane and Inlay – Deep Treatment – 80mm to 100mm		
Footways	Bituminous	Plane and Inlay – 25mm	Reconstruction – 70mm and 150mm Type1 or 80mm and Sand and 150mm Type 1	
Toolways	Blocked, Flagged & Mixed	Reconstruction – Flag and Sand and 150mm Type1	Reconstruction – Block / Flag and Sand and 150mm Type1	
Street Lighting	Managed in CONFIRM			
Highway Structures	Managed in BRIDGESTATION			
Drainage	Gully Cleansing, managed in CONFIRM			

MODULE E – WORKS PROGRAMMING & PRIORITIES

What... Haringey prioritises maintenance work and generates forward works programmes to gather the individual maintenance activities required for the highway assets and schedules them into a task programme.

Why... Developing a prioritised longer-term programme of works gives greater transparency of the work to be delivered. For residents and businesses, there is an understanding of the volume of work that will be done and when our street will be invested in. For works delivery teams, there is greater certainty of future work to better resource and deliver work efficiently.

Furthermore, a longer-term view to highway asset investment allows Haringey to focus on delivering a forward-looking strategy, ensuring the most benefit is derived from the investment, as well as an ability to assess what can be done with the investment provided.

Who... The responsibilities for the 'Works Programming & Priorities' module lie with:

Preparing works	Group Engineer,
programmes	Highways and
	Maintenance
Updating & reporting	Principal/Senior
module	Engineers

How... Haringey provides ongoing analysis and updates of the priority for investment of each asset based on the usage factor, customer requests, engineering need and condition. To achieve this, data is collected and analysed to provide a priority list of all assets with an asset group.

From this Haringey can assess the quantity of work that needs to be done, and the type of work that needs to be undertaken. The tools used for assessment are:

- 1. CONFIRM:
 - Carriageways
 - Footways
 - Street Lighting
 - Drainage
- 2. BRIDGESTATION: Highway Structures
- 3. As part of the routine highway safety inspections: Street Furniture
- 4. By Haringey Parks on behalf of Highways: Highway Verges & Trees.

This supports module D - Maintenance Strategy & Hierarchy and module G - Investment Strategies. The processes for developing the programmes for the above-mentioned highway assets are shown in

Reporting... Haringey produces a carriageways and footways prioritised schedule of works through condition data and criteria shown in Figure E1 and E2 and expanded on in Table E1. Cycling data remains to be compiled to contribute to the assessment of overall priority for future planned works programmes. Every road section is then assigned a score which determines its priority ranking. This ranking determines the schedule of works up to the

available budget. The draft works programme is then presented to the cabinet for our final approval and endorsement.

Success Measures... The delivery of Haringey's works programme is the tangible outcome of the entire asset management planning process. The prioritisation, planning and delivery of works aligns with Haringey's Highway Policy, delivering performance targets as set in module H – Performance Management.

Further Information:

<u>Highway Infrastructure Asset Management</u> <u>Guidance document, HMEP – UK RLG, 2013</u>

ISO 55000 – Asset Management

UK Pavement Management System (UKPMS)

UKRLG – Well-managed Highway Infrastructure

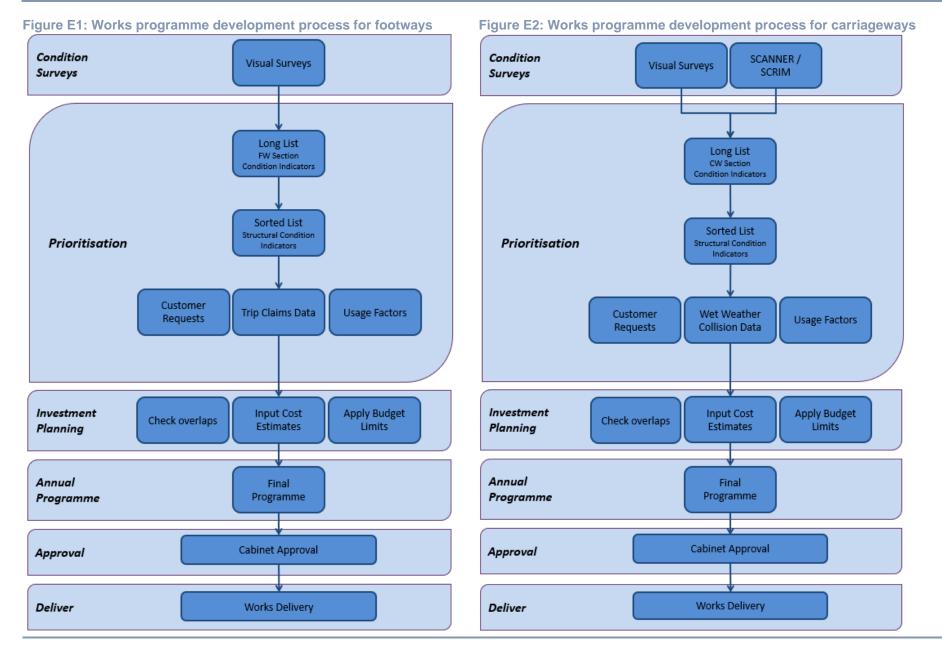


Table E1: Usage factors.

Dataset	Importance	Source
Highway Network Hierarchy	Distinguishes between high / medium / low vehicle usage patterns and other criteria, for example vulnerability of road users.	Haringey Highway Safety Inspection Regime
Resilient Network	Identify roads with a strategic importance, which need to be kept operational even during the winter period.	<u>LoTAG</u> (2010)
Engineering Defects Condition Rating	Identifies roads with high number of measured defects.	SCANNER, SCRIM & DVI
Bus Routes	Identify roads with a high bus volume and a high pedestrian usage.	TfL Bus Routes Map (2021)
Trip Generators Primary Shopping Areas / Schools / Hospitals / Care Homes / Stadiums / Industrial Areas	Identify locations of high volumes of carriageway / footway users and main economic drivers.	Haringey / GIS

MODULE F – FUNDING & EXPENDITURE

What... Funding is the financial support Haringey uses to maintain highway assets. This is generally obtained from various streams, primarily from Council funded capital and revenue but with some additional funding from TfL and national sources. This module looks at current and future funding sources, as well as expenditure received to help understand impact of varying investment levels on performance.

Why... Haringey needs to stay abreast of potential sources of funding and revenue opportunities. With changes in government / TfL funding, the ability to raise revenue locally to sustain normal working highways activities is important.

Hence, the highways team needs to ensure the best case is put forward for funding from funds available through CIL, Section 106 & 278 and business rates which provide income to the Council.

Who... The responsibilities for the 'Funding & Expenditure' module lie with:

Defining budget need Highways and Traffic Developing income Manager opportunity

Monitoring	
expenditure	

Updating & reporting module

Group Engineer, Highways and Maintenance Principal/Senior Engineers

How... Haringey investigates alternative funding opportunities to invest in the highway infrastructure with the aim of reaching and maintaining a steady-state condition of the network. This follows from Haringey's intention to extend a best practice approach to all highway asset types, underpinned by recent investment modelling, detailed in module G.

The following funding routes are identified by Haringey to be pursued:

- Council capital/revenue.
- Government / TfL grants where available.
- Funding from the Local Implementation Plan.
- Funding from revenues and contributions.
- Funding from the Community Infrastructure Levy; S106 and S278 Developer Agreement

Expenditure is recorded and monitored on an annual basis to reflect the overall funding, and income and capital / revenue split for the Council.

Reporting... The proposed expenditure is reported through an annual cabinet report.

Capital and revenue support from Council sources are the subject of funding internal bids.

Figure F1 provides an overview of the trend in income streams from internal and external sources and how this has been spent through capital and revenue budgets. In the last 3 years, there has been a budget leap to address the backlog of maintenance works required as well as roll out an LED replacement programme. This budget should be sustained in the future looking at asset maintenance across the whole of highways.

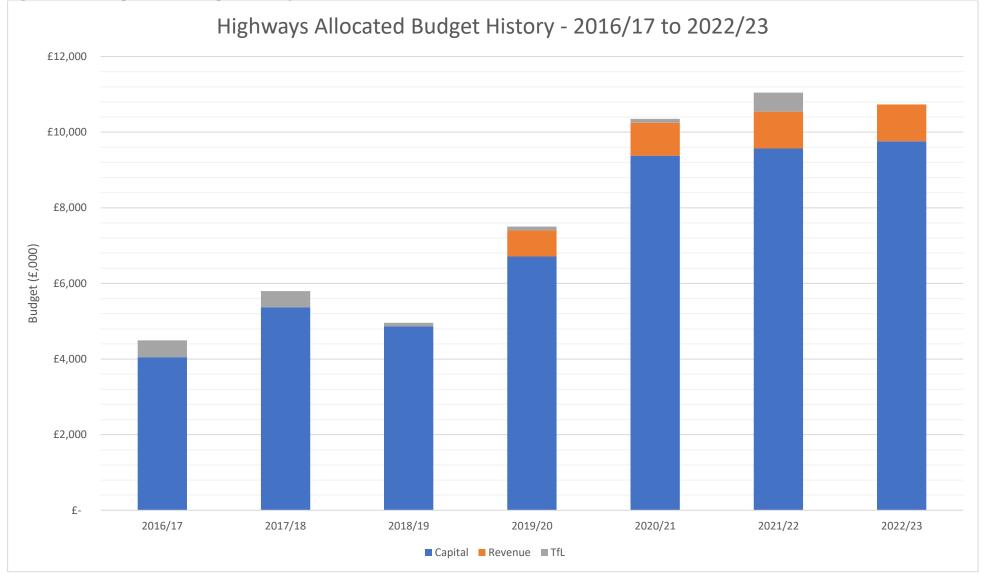
Success Measures... Maintaining investment levels including maximising income from third parties is essential for the long-term improvement and steady-state maintenance of the highway assets.

The need to inform future budgets through investment modelling, outlined in module G – Investment Strategies, will be imperative to build a robust business case for alternative funding.

Further Information:		
HMEP/UKRLG – Maintaining a Vital Asset		
ISO55000 – Asset Management		
UKRLG – Highways Infrastructure Asset		
Management Guidance Document		

UKRLG – Well-managed Highway Infrastructure

Figure F1: Funding streams, budgets and expenditures.



MODULE G – INVESTMENT STRATEGIES

What... Investment in the highway asset is essential to improve the condition, maintain a steady-state or control the rate of deterioration. To determine the best level of investment and drive long-term capital savings, varying budget scenarios across different parts of the network are explored.

Investment planning is the process used to determine backlog (to bring the asset to its desired condition) and steady-state (to sustain the asset in its desired condition) funding requirements. It includes an analysis of the short and long-term impacts of different possible budget scenarios.

Why... Understanding how the asset will behave in differing scenarios helps inform the level of investment required to meet desired levels of performance. In turn, this can advise appropriate budget levels and support decision through a robust understanding of the impact of different investment scenarios. For example, reducing the maintenance budget below a certain level can lead to an increase in the backlog.

This can be demonstrated by comparing the value of annual investment plans against the predicted level of improvement to the maintenance backlog.

Who... The responsibilities for the 'Investment Strategies' module lie with:

Determining strategies	Highways and Traffic Manager
	Group Engineer,
Evaluation strategies	Highways and
	Maintenance
Updating & reporting	Highway Improvements
module	Manager

How... Haringey periodically reviews the investment needs of different assets using condition data collected and performance measures as demonstrated within the module H – Performance Management.

This information then feeds into the lifecycle planning model to determine the current backlog and the impact of the determined investment scenarios. The approach ensures investment is driving capital savings, striving towards the desired performance level and is providing a network fit for purpose.

Haringey aims to optimise the revenue expenditure and maximise savings where appropriate by implementing optimal treatment strategies.

Reporting... Lifecycle planning reporting is done through update reports as and when

investment scenarios are undertaken to support capital and revenue funding bids. Within the HAMS, the investment strategy is set out in line with recent investment modelling undertaken.

Success Measures... Investment strategies are aligned to deliver the performance targets as stated in HAMS H -Performance Management. The summary Information below is from investment modelling work carried out in August 2021.

Table G1: Backlog per asset.

Asset	Backlog
Carriageways	£13.9m
Footways	£44.2m
Total	£ 58.1m

Table G2: Required against current funding.

Asset	Steady-State Funding Need	Funding Proposed 24/25
Carriageways	£3.0m	£1.76m
Footways	£2.2m	£2.91m
Total	£ 5.2m	£ 4.67m

Further Information:

Business Case 2021

MODULE H - PERFORMANCE MANAGEMENT

What... Performance management is the process by which Haringey communicates objectives for the highway assets and monitors performance against these objectives.

Why... Haringey has adopted this approach to ensure highway asset maintenance functions on the ground are aligned to and contribute to achieving the Council's corporate vision coupled with objectives laid out in the London Mayor's Transport Strategy 2018.

Who... The responsibilities for the 'Performance Management' module lie with:

Approving targets	Group Engineer, Highways and Maintenance
Monitoring performance	Team Managers, Highway Maintenance and Highway Improvements
Updating & reporting module	Principal/Senior Engineers

How... Haringey has adopted performance management according to ISO 55000 and as

outlined in the HMEP – UKRLG Highway Infrastructure Asset Management Guidance document (2013).

Relevant high-level drivers have been identified from Haringey's Borough Plan 2019-23, and the Mayor's Transport Strategy for London.

Reporting... Haringey uses the following performance dashboards to illustrate the performance management system adopted, as in Tables H1 and H2. They consider all the highway assets under the Council's remit, outlining for each, multiple Performance Indicators (PIs), and the targets mapped to levels of service categories.

Contractor performance is monitored against the targets shown in table H1 on a monthly basis.

Network condition targets are set out in table H2. Progress towards these targets is monitored annually and amended to reflect improvements resulting from the annual investment programmes.

This process ensures Haringey focuses efforts and investment into the areas that positively impact the high-level drivers and represent the highest level of risk to the Council. The cost of attaining target PIs is discussed in module G – Investment Strategies.

Success Measures... Apart from providing a direct link to the Council's corporate vision, performance management helps to demonstrate the effective use of available budgets. This will also demonstrate any shortfalls in funding and where this needs to be addressed to ensure the transport network is fit for purpose at acceptable level of risk.

Further Information:		
HMEP/UKRLG – Maintaining	g a Vital Asset	
ISO55000 – Asset Managen	nent	
<u>UKRLG – Highways</u>	Infrastructure	Asset
Management Guidance Document		
UKRLG – Well-managed Hig	ghway Infrastruct	ure
Mayor's Transport Strategy	<u>2018</u>	
Haringey Borough Plan 2019-23		

Figure H1: Asset performance indicators setting.

High-Level Drivers

- A public transport network that is better connected, has greater and more efficient capacity and is more accessible, supporting our growth ambitions
- Active travel the default choice, with more people choosing to travel by walking or cycling
- An improved air quality and a reduction in carbon emissions from transport
- A well maintained road network that is less congested and safer

Highways Performance Target Statements

- Maintain and enhance our road network, making it best in class in London
- •Reduce road user casualties, especially among children, pedestrians, cyclists, motorcyclists/scooters and other vulnerable road users
- Minimise the use of our back streets as 'rat runs'
- •Reduce the speed and enforce speed limits of road traffic in residential areas and shopping streets

Asset Performance Target Statements

- •A safe carriageway surface with minimal potholes and other defects, minimise disruption
- A safe footway surface with minimal defects, providing accessibility across the borough
- Safe highway structures
- •Street lighting operating as intended with safe columns
- •Streets free from standing water and with good drainage

Asset Performance Indicators

- Measurable metrics providing insight into current and targeted performance
- A consistent and meaningful approach to monitoring and providing learning back
- •As per the performance dashboard (Table H2)

Table H1: Contractor performance targets.

KPI Reference	Description	Current	Target
T1	Emergency Attendance where appropriate action taken within 2 hours	100%	100%
T2	Scheme works completed to programme	100%	100%
Q1	Single visit fix during Emergency Attendance	TBD	20%
Q2	Right first-time schemes	100%	75%
E1	Application accuracy	97%	90%
E2	Final application on final measure presented on time	95%	95%
P3	Appropriate use of CONFIRM system to store record information	TBD	90%
P5	Construction waste reused or recycled	97%(H) 100%(L)	95%(H) 95%(L)

(H): Highway, (L): Lighting Current is the most recent measure in December 2023

Table H2: Haringey's service performance dashboard extract.

Performance Indicators		Performance		
Asset Group	Description	Current	Target	Year
	% of Principal Classified roads in good condition	67%	70%	2031
Carriageways	% of Non-Principal Classified roads in good condition	62%	70%	2031
	% of Unclassified roads in good condition	58%	70%	2031
Footways	% of Footways in good condition	64%	79%	2031
Drainage	% of gullies in good condition	95%	95%	2031
Drainage	% of gullies in operating efficiently	90%	90%	2031
Street Lighting	% of streets not reported as faulty	91%	95%	2031
	% of columns in good structural condition	95%	95%	2031
Highway Structures	% of highway structures in a state of good repair	85%	90%	2031

MODULE I – STAKEHOLDER ENGAGEMENT

What... Stakeholder engagement is the process of engaging key interest groups and asset users to inform how highway assets are maintained.

Stakeholders are groups or individuals with an interest in how the highway assets are managed. These may include specific groups requiring access to the network and businesses needing good infrastructure to support our economic activity. Most importantly it must be ensured that highway assets are maintained in a manner which provides a safe network, to fulfil the Council's statutory duty.

Why... Engaging with internal stakeholders and external end users ensures the social and economic benefit of the use of the road network is recognised. Such a consultation informs decisions being taken by engineers.

Who... The responsibilities for the 'Customer Engagement' module lie with:

Leading customer engagement Updating & reporting module Highways and Traffic Manager Group Engineer, Highways and Maintenance

How... Haringey engages with members to inform our approach to investing in the highway network, and with community interest groups.

Haringey has developed internal and external communication plans which detail how asset management procedures are communicated and how. The stakeholders engaged are listed in Table I1.

Where planned maintenance is concerned, stakeholders are notified – though delivery programmes can be amended to take account of utility works and emergency service views. Planned traffic, environmental, safety and parking schemes on the other hand are subject to written consultation. The plans facilitate effective communication between the highways department and stakeholders by defining how information is conveyed to relevant parties.

Reporting... Corporate customer satisfaction surveys are periodically carried out and the opportunity is taken to obtain feedback regarding highway maintenance.

Success Measures... Fewer claims on highway assets and diversity in the types of highway / public realm improvement works delivered to maintain the highway asset in Haringey.

 Further Information:

 Equalities Act 2010, Public-Sector Equality Duty

 Public Communication Plan

 Internal Communication Plan

Table I1: Highways asset management stakeholders.

Planned highway improvement Works	Planned traffic, environmental safety and parking Improvement schemes
Emergency services	Emergency services
Bus operators	Bus operators
Transport for London where relevant	Transport for London where relevant
Neighbouring authorities where relevant	Neighbouring authorities where relevant
Businesses, residents and schools affected	Businesses and residents
Ward councillors	Schools
	Local community /specific user groups including cyclists
	Ward councillors

MODULE J – SERVICE DELIVERY

What... Much of Haringey's highway maintenance service is delivered with support from external contractors, suppliers and consultants, to ensure we are adopting the most effective way of delivering the service at a reasonable cost.

Haringey follows internal contract procedure rules and the relevant national procurement legislation to ensure fair competition for works contracts and support services. This ensures that the legal obligation for Local Authorities to allow fair and open competition is met.

Why... With value for money for Haringey in mind, we ensure the strategy for delivering our services identifies the best approach to maintaining our assets in the most effective and efficient way possible. Hence, we use our inhouse capability and skills to manage long-term costs while delivering best practice through competitive tendering.

Who... Management of the procurement strategy and delivery is essential, responsibilities lie with:

Procurement Strategy / Highways and Traffic Process Manager/Strategic Procurement Contract Monitoring Group Engineer, Highways and Maintenance

How... Haringey aims to:

- Deliver robust contract management to improve service outcomes, provide value for money and deliver corporate aims.
- Provide opportunity to local people, particularly SMEs, for employment.

To achieve these aims, key strategic procurement will have the highest level of governance and oversight. Haringey will continually improve on systems and technology to manage and monitor contracts and procurement processes to assure best value and reduce unnecessary costs.

Haringey ensures that tendered contracts include social value within the scoring methodology. This will be assessed using a concise list of social value considerations, directly linking to the Borough Plan.

Reporting... All procurement follows relevant national procurement legislation to ensure fair, open and transparent processes to ensure

Haringey's suppliers / contractors are well placed to deliver the service required.

A strategic procurement team assists departments with tenders and contracts to ensure that a collaborative approach is implemented, whereby the procurement knowledge, experience and expertise already within the Council is pooled across the organisation.

This process provides a high level of auditability and transparency, with adequate consideration of commercial sensitivity. Any gaps in local knowledge, experience and expertise are filled through collaborative arrangement with other public sector organisations.

Success Measures... Haringey monitors performance to ensure contractors deliver the intended value for residents and taxpayers. KPIs are recorded and monitored working with the contractor to improve outcomes, with themes being timeliness, quality, value for money, and health & safety, and process delivery.

Further Information: Procurement Strategy 2020-2025

Table J1: Service providers.

Area of Work	ork Contractor Name		Expiry		Contract
		Core Term	Extension	Review	Туре
Client Services	Haringey		N/A	N/A	N/A
Traffic Signal Maintenance	TfL		N/A	N/A	N/A
Design and Works Supervision	Haringey		N/A	N/A	N/A
Consultancy Support	Various		Various	5	
Civil Engineering and Highway	Marlborough Highways	To July 2025	+2 years	2024	
Maintenance	Highway maintenance – planned		·		
	Highway maintenance – reactive				
	Resurfacing / Reconstruction				
	Drainage / Gully cleansing				
	Road markings laying / refresh				
Public Lighting including Structural & Electrical Testing	Marlborough Highways	To October 2023	+2 years +2 years	2022	
	Street Lighting – planned				
	Street lighting – reactive				
	Signs and Bollards maintenance				
Grounds Maintenance including	Haringey Parks and Leisure on				
SUDs features	behalf of Highways. Residents and				
	Friends Groups				
	Highway Tree and Verge Maintenance				

MODULE K – DESIGNING FOR MAINTENANCE

What... Designing for maintenance considers the associated risks and costs linked to how highway improvement schemes are maintained over the lifespan of materials. Incorporating Maintenance considerations are taken into account during the design of new highway schemes and existing scheme improvements.

Why... Designing for maintenance is central to Haringey's borough objectives as set in our Local Implementation Plan (LIP3), as its application helps identify design solutions that:

- Promote value for money and sustainability through materials and practices.
- Limit network disruption for residents when carrying out works.
- Increase safety for all roads users, especially with accessibility concerns.

Who... The responsibilities for 'Designing for Maintenance' lie with:

Overseeing the	Highways and Traffic
design process	Manager
Review designs &	Traffic Manager/Parking
provide comments	Design Manager/

Updating & reporting module

Highway Improvements Manager Traffic Manager/ Parking Design Manager/ Highway Improvements Manager

How... Haringey uses a sustainability-focused approach to design, that ensures the integration of maintenance considerations at an early stage. Standard materials and items are normally selected from a pre-approved pallet set out in a Streetscape Design Manual. This ensures items can be sourced to meet maintenance needs on a cost-effective basis. Where specialist materials are used, legacy funding provision is included.

In addition, Haringey has implemented procedures that support and embed designing for maintenance. During the design of new assets, relevant internal stakeholders are involved at key stages and are given the opportunity to comment on aspects that have maintenance and other implications.

When designing for maintenance, Haringey considers factors in-line with the Well-Managed

Highway Infrastructure Code of Practice, 2016. The Council prioritises options to encourage walking and cycling with manageable maintenance plans over the lifetime of each scheme when designing street environments.

Reporting... The Streetscape Manual and this module of the HAMS are updated as Haringey processes evolve in-line with industry best practice and as new materials / products come on the market.

Success Measures... Haringey considers maintenance requirements at the design phase to demonstrate an on-going reduction in the whole-life-cost of asset maintenance and contribution to sustainability.

Further Information: UKRLG – Well-managed Highway Infrastructure Local Implementation Plan (LIP3) 2019-2022 Haringey Streetscape Manual

MODULE L – SUSTAINABLE HIGHWAY MAINTENANCE

What... Sustainable highway maintenance looks at the three pillars of sustainability consisting of the social, economic and environmental aspects. This approach to maintenance will ensure Haringey maximises community value and minimises whole life costs, whilst maximising environmental contributions.

Why... Highway maintenance has a direct impact on the sustainability agenda of the Council as:

- It fosters the development of sustainable communities.
- It recognises social progress and supports needs to enhance social value to residents.
- It helps develop sustainable engineering solutions.
- It consumes large quantities of natural resources and generates large quantities of waste.
- The extraction, processing and transportation of materials used constitute a significant source of embodied carbon, particularly in the production of cement and asphalt.

Haringey is committed to ensure that highway maintenance is conducted in as sustainable a manner as possible. Legacy funding for unusual materials is an ongoing issue tackled through standardisation within regeneration works. A commuted sums approach is generally adopted, and a better understanding developed of any expectation of higher levels of maintenance and resourcing as required.

Who... The responsibilities for the 'Sustainable Highway Maintenance' module lie with:

Monitoring contractual KPIs	Group Engineer, Highways and Maintenance
Updating & reporting module	Principal/Senior Engineers

How... Haringey addresses the social and economic pillars of sustainability in other HAMS modules, including module D – Maintenance Strategy, module I – Customer Engagement and, module K – Designing for Maintenance.

Within the environmental pillar of sustainability, Haringey looks for opportunities within maintenance activities to:

- Improve community safety.
- Improve accessibility across ages and social groups.
- Encourage active travel.
- Enhance the quality of public space through biodiversity and wildlife conservation.

In addition, Haringey and engaged contractors are committed to the environmental mitigations outlined in Table L1.

Reporting... Haringey monitors environmental sustainability through key performance indicators. These are reported in the term contractor's Annual Performance Report and through monthly meetings between Haringey and the term contractor.

The existing term contract sets a target of recycle or reuse 50% (street lighting) and 95% (construction) of waste and these are monitored from contractors information with targets to be reviewed by Haringey.

Success Measures... Taking full advantage of the environmental contribution through the adoption of sustainable highway practices is imperative for the long-term benefits that Haringey will reap in all three pillars of sustainability.

Hence, it is Haringey's aim to continue driving the sustainability agenda and keep environmental pollution to a minimum.

Further Information:

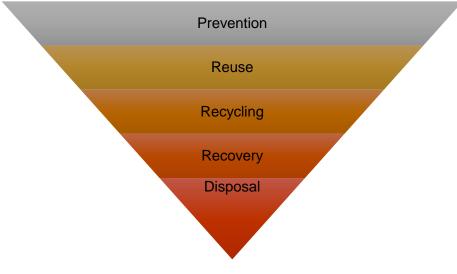
Contractor's Annual Performance Report

Sustainable Design & Construction

Table L1: Environmental mitigations undertaken by Haringey and engaged contractors.

Pollution Control	Haringey will always seek to reduce the environmental impact of maintenance works either through avoiding work during sensitive periods (noise pollution) or difficult weather conditions (water pollution). This ensures appropriate measures are in place to avoid potential contamination or damage to the surrounding landscape, watercourses or groundwater.
Noise Reduction	In addition to minimising the impact of noisy maintenance operations, the Council considers low noise alternatives to traditional carriageway surfaces, to reduce noise pollution from passing vehicles, where there is a favourable benefit / cost ratio.
Air Quality	Air quality is high on Haringey's environmental agenda, listed as Objective 3 of the Haringey Transport Strategy. Haringey proposes to introduce initiatives through pursuing projects and programmes to reduce vehicle use, particularly diesel-powered vehicles, and supporting alternative means of transport to motor vehicles, amongst other measures.

Figure L1: Haringey's waste hierarchy approach adopted.



HAMS MODULE M – FLOOD AND WATER MANAGEMENT

What... The 2012 Climate Change Risk Assessment identified flooding as an important risk for the transport sector. As a highway authority, Haringey considers the impact of climate change, specifically, the impact of flooding on highway assets.

Significant progress has been made in promoting the implementation of Sustainable Urban Drainage Systems (SuDS) across Haringey. Several schemes have been implemented deriving benefit from enhanced biodiversity, flood risk management and amenity. More detailed information can be found on the Council website.

Why... As the Lead Local Flood Authority, Haringev are responsible for reducing and managing the risk of flooding from surface water, groundwater and ordinary watercourses under the Flood and Water Management Act 2010.

Who... The responsibilities for the 'Asset Knowledge' module lie with:

Data collection

Data management

Updating & reporting Principal Engineer, module

Flood Water Management

How... Haringey has a duty to coordinate views and activity with other local bodies and communities, in preparing a strategy for local flood risk management. Additionally, Haringey operates a risk-based approach to the management of its drainage assets.

Haringey identifies roads with critical gullies located within the Critical Drainage Areas (CDAs). Roads with three levels of priority have been identified as:

- High Priority Roads: Gullies require cleaning every 6 months
- Medium Priority Roads: Gullies need cleaning annually.
- Low Priority Roads: Gullies cleaned every two years.

Haringey has identified 6,920 gullies located within Critical Drainage Areas. Previously, these were kept operational through the annual gully cleansing programme. The remaining gullies were then programmed for proactive cleansing, with longer timelines.

In a change to this approach, Haringey has now classified gullies within 3 priority bands for prioritised cleansing. Factors considered to assign the priority ranking include low-lying areas, recorded incidence of flooding and accessibility concerns, amongst others.

Reporting... In compliance with Section 21 of the Flood and Water Management Act 2010, Haringey maintain a comprehensive asset register of all drainage structures and features, see Table C3, as well as a strategy for local flood risk management. Maintenance activities of drainage assets are logged in the asset management system CONFIRM. Information is gathered on the location, condition and performance of road gullies.

Success Measures... The functional operation of gullies will affirm a successful gully cleansing programme. Minimising the impact of flood events will be the overarching success measure of Haringey's flood and water management procedures.

Further Information:

HMEP/UKRLG - Maintaining a Vital Asset

Flood and Water Management Act 2010

Land Drainage Act 1991

UKRLG – Well-managed Highway Infrastructure

MODULE N – NETWORK RESILIENCE

What... The Council has a statutory duty under the Highways Management Act to ensure the expeditious movement of traffic on the road network and those networks of surrounding authorities. This duty includes the coordination of street works both internally, with statutory undertakers, and other highway authorities to minimise traffic disruption. The duty also includes ensuring that processes are in place to manage the highway network, during times of extreme weather e.g. intense heat and flash flooding, and other emergencies.

Haringey aims to maintain the network resilience, by maintaining the defined resilient network to a good standard through highways maintenance, coordination of all activities or events that have an impact on the highway network.

Module N looks at the specific processes in place to manage the highway network in times of extreme weather e.g. intense heat and flash flooding, and other emergencies.

As defined in highway terms by the DfT, extreme weather includes major rainfall events, intense summer temperatures and strong winds exceeding infrastructure operational limits. *Why...* To develop a resilient network and strategy to manage Haringey's approach to dealing with extreme weather and other emergencies.

This management approach will ensure that Haringey maintains a functional network and minimises social and economic disruption caused by weather and other emergencies.

Haringey is committed to ensure that the highway network is maintained to a high standard and disruption on the network is minimised, where possible. However, exceptional weather events and emergencies may cause unforeseen disruption.

Who... The responsibilities for the 'Network Resilience, Weather & Other Emergencies' module lie with:

Highway Network
Manager
Group Engineer,
Highways and
Maintenance
Highway
Maintenance Manager

How... Haringey aims to maintain the network resilience, by maintaining the defined resilient network to a good standard through

highways maintenance and, by adopting fastacting responses to emergency situations on the network to recover to full functionality as soon as practicable. Good coordination of all street and project works as well as maintaining key emergency routes contribute to enabling rapid action in emergencies.

Haringey maintains a risk register which aligns with the Greater London Authority's risk assessment process. The Emergency Planning team creates plans which guide how the council will respond to emergencies. These plans are consistently reviewed and updated.

Haringey defines the resilient network on the basis of local winter maintenance routes, as outlined in our winter maintenance plan. Haringey also consider the following factors:

- Key strategic routes
- Town centres
- Critical flooding areas
- Key amenities

Reporting... Haringey reviews the performance of the network resilience by conducting reviews of responses to emergency situations. These are audited internally and used to inform lessons learnt.

Success Measures... To reduce network disruption to the minimum possible within the constraints of the scale and magnitude of weather events and other emergencies. Network in good state of repair.

Further Information:

London Risk Register

Emergency Planning | Haringey Council

Winter Service Operations

MODULE O – IMPLEMENTATION & IMPROVEMENT PLAN

What... implementation The and improvement plan is designed to assist Haringey to develop and implement a continuous improvement programme to enhance asset management processes, systems and data, and support the effective delivery of desired asset management outcomes.

Why... Continuous improvement is an essential element of asset management for Haringey. This enables longer term financial savings to be realised and better decisions made from information gathered around work done. Moreover, the HAMS should deliver key improvement actions to demonstrate improvement through time.

responsibilities Who... The for the 'Implementation & Improvement Plan' module lie with:

Maturity Assessment	Highways and
	Traffic Manager
Implement asset	Group Engineer,
management	Highways and
	Maintenance
Identify & deliver	Highway
improvement actions	Maintenance
	Manager/Highway
	Improvements
	Manager
Updating & reporting	Principal/Senior
module	Engineers

How... Haringey undertakes continuous improvement as outlined in the Wellmanaged Highway Infrastructure - A Code of Practice (2016).

A gap analysis is carried out periodically, through an Asset Management Maturity Assessment (AMMA), to highlight the disparity between the current and desired asset management practices within the

Council. This identifies where strengths lie and areas where efforts should be focused and help establish improvement actions for both in the short and long terms.

Reporting... The main issues identified, and improvement actions proposed as part of an improvement action plan are shown in Table O1. This plan provides a summary of the actions that should be implemented and proposes a target year for completion.

Success Measures... By periodically undertaking a Maturity Assessment, Haringey will demonstrate continuous improvement in asset management and close the identified gaps in the assessment.

Further Information: ISO 55000 – Asset Management UKRLG – Well-managed Highway Infrastructure

Table O1: Improvement action plan.

Module	Action	Measure	Responsibility	Time		
module			Responsibility	2022	2023	Onward
A – Context	Update the Haringey HAMS.	Annual summary on health of highway infrastructure.	Group Engineer, Highways and	\checkmark	-	\checkmark
B – AM Framework	Develop asset plans and operating procedures.	Develop a plan for managing and maintaining each asset group.		\checkmark	\checkmark	\checkmark
	Improve data management strategy.	Ensure data management meets goals and objectives for asset groups and statutory requirements.	Maintenance	_	\checkmark	\checkmark
C – Asset Knowledge	Collect footway condition data through visual inspection.	Ongoing improvement of knowledge of condition of the footway network.	Highway Maintenance Manager/Highway Inspectorate	_	-	\checkmark
	Improve information on key inventory items.	Ongoing improvement of knowledge of all assets.		_	-	\checkmark
D – Maintenance Strategy	Implement maintenance decision trees for all asset groups.	Improve decision process for maintenance interventions.	Highway Improvement Manager	\checkmark	-	\checkmark
E – Works Programming & Priorities	Improve annual programme development.	Develop an annual delivery plan for each asset	Principal Engineers/Senior Engineers	-	-	\checkmark
F – Funding & Expenditure	No action required.	Covered by annual investment plans approved by Cabinet		_	-	-
G – Investment Strategies	Undertake lifecycle planning.	Update lifecycle planning annually.	Group Engineer, Highways and Maintenance	_	-	\checkmark
G – investment Strategies	Investigate investment strategy scenarios.	Ensure budgets are spent in the most optimal fashion.		_	-	\checkmark
H – Performance Management	Review and propose performance service levels and targets for indicators.	Performance targets for unclassified roads, footways, drainage, structures, street lighting and highway trees assets.		_	_	\checkmark

Module	Action Measure	Deeneneikiliku	Time			
		Measure	Responsibility	2022	2023	Onward
	Maintain suite of focused KPI's.	Improve knowledge of customer satisfaction.	Group Engineer, Highways and Maintenance	_	-	\checkmark
I – Stakeholder Engagement	Review stakeholder engagement process to support decision-making.	Ensure that stakeholders are consulted on improvement projects and notified regarding planned maintenance programmes.		_	_	✓
J – Service Delivery	No action required.	-		_	_	-
K – Designing for Maintenance	Investigate whole life costs for highway improvement schemes.	Develop a tool informing decisions on materials.		_	-	\checkmark
L – Sustainable Highways Maintenance	No action required.	-		-	-	_
M – Flood and Water Management	Maintain a comprehensive asset register of drainage features which are likely to have a significant effect on flood risk.	Ensure register is routinely updated in compliance with the Flood and Water Management Act 2010.	Principal Engineer, Flood Water Management	_	_	✓
N – Network Resilience & Other Emergencies	No action required.	-	Highway Network Manager/Highway Maintenance Manager	_	_	-
O – Implementation Plan	Undertake asset maturity assessment.	Complete assessment annually.	Group Engineer, Highways and Maintenance	_	_	\checkmark
Appendices						
A – Safety Inspection Manual	Updated to align with the new Code of Practice for "Well-Managed Highways Infrastructure".	Ongoing monitoring to ensure that practices continue to be aligned to the most recent Code of Practice.	Principal/Senior Engineers	_	_	✓

APPENDICES

Ref.	Description	Responsibility	Latest Version
Appendix A	Highway Inspection Policy	Team Leader, Highway	Nov 2018
	Providing the highway safety inspection in accordance with the code of practice Well Managed	Inspections	
	Highway Infrastructure: (UKRLG 2016) and Well Managed Highway Liability and Risk	·	
	Guidance (IHE 2017)		