Walsall Council

Highway Maintenance Management Plan.

Version 1.1.6 Updated April 2025.

Contents.

1. Introduction.

The highway and its associated infrastructure are by far the most valuable asset managed and maintained by the council, with an estimated 'As New' replacement value averaging around £1.5 Billion. Walsall manages a highway network of approximately 845km, the adoption of asset management principles provides an effective way to manage its assets. Asset management planning is promoted by the Department for Transport (DfT) and is encouraged within the UK Roads Liaison Group 'Well-Managed Highway Infrastructure: A Code of Practice' (The Code). The Code sets out 36 Recommendations as key drivers for effective highway maintenance management planning.

This Highway Maintenance Management Plan is one of three core documents that form an integrated approach for delivering planned, routine and reactive maintenance services across Walsall's highway infrastructure assets. It aligns with the council's Highway Asset Management Policy, sets out the council's objectives for infrastructure management to describe how they complement the 'Council Plan 2022/25' and 'We Are Walsall 2040'. It is designed to be read in conjunction with the council's Highways Asset Management Strategy, which details the approach taken by the council for developing and delivering asset and highway maintenance management planning practices:

Highway Asset Management Policy

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Highway Asset Management Strategy

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Highway Maintenance Management Plan

Together, this suite of documents outlines how the council will fulfil its statutory and regulatory duties as highway authority by developing management practices that aim to maximise network safety, serviceability and sustainability, within a customer services framework. It provides a structure for the council's financial management processes for delivering highway infrastructure maintenance activities. In developing this approach, the council has captured long standing institutional knowledge and combined this with guidance and support from leading private sector asset management planning consultants and best practice from neighbouring authorities.

Councillor Kerry Murphy,
Portfolio Holder, Street Pride.

"The Highway Maintenance Management Plan provides a reference point for those seeking information on aspects of maintenance policies and procedures, as well as being a resource for officers involved in procurement, provision or administration of the highway maintenance service. It highlights the areas where new initiatives have been introduced; revisions to policy or service provision within a risk-based environment."

Walsall's most significant Highway Infrastructure Assets comprise of around:

Carriageways	847km
Footways	1,300km
Public Rights of Way	98km
Streetlights	26,000
Road Gulley's	37,500
Traffic Signal Junctions	90
Bridges	120

Key Legislative and Best Practice drivers include:

- Highways Act 1980.
- Railways and Transport Safety Act 2003.
- Traffic Management Act 2004 & Permit Scheme (England) Regulations 2007.
- New Roads and Street Works Act 1991.
- Countryside and Rights of Way Act 2000.
- Transport Act 2000.
- Road Traffic Regulations Act 1988.
- Road Traffic Reduction Act 1997.
- Flood and Water Management Act 2012.
- Traffic Signs Regulations and General Directions 2016.
- Railways and Transport Safety Act 2003.
- Countryside and Rights of Way Act 2000.
- Environmental Protection Act 1990.
- Clean Neighbourhoods Act 2005.
- Wildlife and Countryside Act 1981.
- Health and Safety at Work Act 1974.
- Management of Health and Safety at Work Regulations 1999.
- Construction Design and Management Regulations (CDM) 2015.
- Local Government Act 2003.
- Disability Discriminations Act 2005.
- Equalities Act 2010.
- Criminal Justice and Public Order Act 1994.
- Human Rights Act 1998.
- Civil Contingencies Act 2004.
- Well-Managed Highway Infrastructure: A Code of Practice 2016.
- CIPFA Code of Practice on Transport Infrastructure Assets 2013.
- HMEP Infrastructure Asset Management Guidance.

Walsall's key document supporting highway maintenance management planning are reviewed annually and are published on the council's Roads, Parking & Travel webpages.

Highway Services:

Walsall Council's highway network plays a vital role in supporting front line services to ensure that key workers travel to and from work safely, and deliveries of essential items operate effectively.

It is a necessity that our roads, footpaths and their associated infrastructure remain safe and serviceable for use at all times, especially during periods of crisis or emergencies. There is recognition nationally that highway authorities cannot afford to allow their highway infrastructure to deteriorate significantly or cause unacceptable backlogs of maintenance work to develop into the future.

It is essential that everyone contributing to the maintenance of Walsall's highway asset, works systematically and consistently. Walsall Council's maintenance strategies give priority to activities such as:

- Essential road maintenance including pothole repairs and drainage cleansing.
- Safety improvements.
- Essential planned works including resurfacing and surface dressing which need to be completed during the drier months of each year.
- Critical junction improvements which will increase capacity.

The approach taken and the document suite developed in support of the delivery of highway infrastructure asset and maintenance management practices, are designed to meet the Code of Practice in the following ways:

Recommendation 1 – Use of the Code.
The 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 Strategy should be developed and published. These should align with the corporate vision and demonstrate the contribution asset management makes towards achieving this vision.

2. Asset Inventory and Network Hierarchies.

Within our Information Governance Policy, the core objectives of highway infrastructure maintenance management revolve around network safety, network serviceability and customer service. To serve these objectives the compilation of asset knowledge comprising of inventory, condition, safety and serviceability data is essential.

Highway authorities have a legal duty to keep a register of streets that are maintainable at public expense and a requirement to maintain information for the purposes of:

- Identifying streets described as traffic sensitive, where work should be avoided at certain times of the day.
- Identifying structures and other features described as special engineering difficulty, requiring consideration when work is planned.
- Identifying reinstatement categories used by statutory undertakers in the reinstatement of their street works.

To support effective asset management planning the council supplements its register of highways assets with other detailed inventory data defining the scale, nature and use of its assets, this data helps the council to:

- Monitor and report condition.
- Assess the expected life cycles of individual asset groups.
- Produce performance data.
- Model future maintenance options.
- Identify future funding needs and establish works programmes.
- Investigate and manage risk.
- Track asset valuation.
- Optimise cross boundary service provision.
- Support industry research and innovation.
- Respond to customer enquiries/complaints.

Data can be an expensive commodity to collate, maintain and update such that it can be relied upon to support performance reporting and decision making. The council adopts a pragmatic approach to data management to ensure where practical it can be used for multiple tasks and that its level of sophistication meets required needs.

Hierarchy is a significant attribute for most network data, it is defined by function, and it forms the foundation of risk-based strategies, it is crucial for establishing levels of service for the council's statutory network management role and fulfilling its co-ordination and regulatory duties.

There is a need to define hierarchies for resilience planning and winter service operations, hierarchy provides a starting point that can be modified to accommodate local operational factors, including across our boundaries with neighbouring authorities, so that reasonable continuity of levels of service can be expected.

Across all asset groups, most hierarchies derive from historically established or nationally defined forms of classification. Where practical network hierarchies are dynamic and reviewed to cater for changes in network characteristics and functionality.

This helps to ensure maintenance strategies keep pace with current use rather than when hierarchies were originally developed or defined.

Table 1 of the Code of Practice identifies a reference point from which to develop local carriageway hierarchies:

Cat	Hierarchy	Type/General Description
2	Strategic Route	Trunk & some Principal 'A' class road between primary destinations.
3a	Main Distributor	Major Urban Network & Inter Primary Links. Short – medium distance traffic.
3b	Secondary Distributor	B & C class roads & some unclassified urban routes carrying bus, HGV & local traffic with frontage access & frequent junctions.
4a	Link Road	Roads linking the Main & Secondary Distributor Network with frontage access & frequent junctions
4b	Local Access	Roads serving very limited number of properties.

Table 2 of the Code of Practice identifies a reference point from which to develop local footway hierarchies:

Cat	Hierarchy	Type/General Description
1a	Prestige Walking Zones	Very busy areas of towns & cities with high public space and street scene contribution.
1	Primary Walking Routes	Busy urban shopping 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 estate roads to the main routes and cul-de-sacs.
*	Minor Footways	Little used rural footways serving very limited number of properties.

The council's carriageway and footway hierarchies align with the codes reference points but make no distinction between Local Access Footways and Minor Footways. During all carriageway and footway safety inspections 'on-site' reality checks are carried out by Highway Safety Inspectors to confirm that classifications reflect current usage: variations are applied accordingly, where risk-based judgements confirm their need.

The council annually invests in data collection for many of its key inventories, systems, processes, including:

- National Street Gazetteer: Register of highways assets.
- Geographical Information System: Highway extents; road classification; works history; road signs; high friction surfaces; structures; flood risk zones; Public Rights of Way's; cycleways; street lighting/illuminated signs inventory.
- United Kingdom Pavement Management System: carriageway & footway: Surface Condition Assessment for National Network of Roads; Coarse Visual Inspections; Detailed Visual Inspections; Footway Network Surveys; Grip tester surveys.
- Alloy: Highway safety inspections; works orders; Customer Relations Management contacts; street works co-ordination.
- Asset Management eXpert: Highway structures and bridge inspections.
- Ezytreev: Trees Inventory.

The councils accompanying Highways Asset Management Strategy outlines the inventories held by Walsall for its significant infrastructure assets along with their associated confidence levels. The council collects asset inventories to quantify the extent, scope, scale, and nature of highway assets and uses this data to supplement other Highway Asset Management Strategy modules to share data both internally and externally. This includes hierarchy consistency, reporting asset performance and informing risk investment models.

All highway inventory data held by the council is managed in accordance with appropriate data protection protocols, licensing and data sharing/processing agreements, with corporate data management competency training packages set in place.

Typical highways Inventory data includes:

Carriageway Network:

Asset Type	Length	Area
A Roads	98km	847,000m^2
B Roads	41km	325,000m^2
C Roads	11km	92,000m^2
U Roads	697km	4,357,000m^2

Footway Network:

Asset Type	Length	Area
High Amenity	229km	596,000m^2
Low Amenity	1,083km	2,282,000m^2

Bridges:

Asset Type	Number
Concrete Single Span	27
Concrete Medium Span	16
Concrete Large Span	5
Steel Deck	25
Pedestrian/Cycle	36

Street Lighting:

Asset Type	Number
Columns	26,053
Wall Mounted Lights	124
Feeder Pillars	343
Illuminated Signs/Bollards	3,361

Urban Traffic Control:

Asset Type	Number
Puffin Crossings	108
Pelican Crossings	9
Toucan Crossings	20
Wig Wags	3
Variable Message Signs	15
Closed Circuit TV	52
Traffic Signals with Ped Facility	60
Traffic Signals without Ped Facility	27

The approach developed for the collection and management of 'Highway Asset Inventory and Network Hierarchies' is designed to meet the Code in the following ways:

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 9 – Network Inventory.
A detailed inventory or register of highways 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.

3. Asset Inspections, Condition Standards & Provisions for Users.

The council as highway authority has a duty under the Highways Act 1980 to maintain public highways to an adequate standard of repair. So, it's important that inspection and assessment regimes are aligned to the authority's risk management policies to maximise safety for road users and strengthen our ability to repudiate claims and fulfil our requirements regarding Network Safety, Serviceability and Sustainability.

The following inspections are undertaken to meet the Authority's statutory obligations and mitigate risk:

Highway Safety Inspections:

Highway Safety Inspections are carried out by a team of Highway Safety Inspectors employed by the council. Their purpose is to identify defects that are likely to create danger or serious inconvenience to users of the network. Inspections are mainly visual & include: carriageway and footway running/walking/cycling surfaces; kerbs; verges; street furniture; signs; road markings; drainage, gullies/ironwork; bollards, guard rails and safety fencing.

Highway safety inspections are programmed across four geographical zones, these are supplemented with additional inspections for district centres: Aldridge; Bloxwich; Brownhills; Darlaston; Walsall and Willenhall. Inspections are normally walked, but driven inspections may also be carried out by two persons where network conditions or resources dictate needs.

Frequencies for inspections were initially derived from hierarchies established using network classifications. Where practical carriageways and footways are inspected at the same time. When hierarchies for carriageways and footways differ, the frequency of inspection will meet the highest frequency required.

Hierarchies are subject to 'on-site' reality checks during safety inspections, with any necessary amendments/variations applied as required.

The Highway Safety Inspection Manual is published on-line, it outlines in detail Walsall's risk- based approach for identifying highway defects and the timescales set in place for highway safety inspections and responses to defects through emergency or programmed repairs.

Frequency of Carriageway Safety Inspections:

Asset Type	Frequency
Strategic Routes	1 Month
Main Distributor Routes	1 Month
Secondary Distributor Routes	1 Month
Link Roads	3 Months
Link Access Roads	3 Months

Frequency of Footway Safety Inspections:

Asset Type	Frequency
Prestige Footways	1 Month
Primary Walking Routes	1 Month
Secondary Walking Routes	3 Months
Link Footways	6 Months
Local Access Footways	12 Months

Defects meeting investigatory levels are risk assessed by inspectors using a risk matrix logic in accordance with the following schematic:

Risk Matrix				
Probability ⇩ Impact ⇨	**Negligible (1)**	**Low (2)**	**Medium (3)**	**High (4)**
Negligible (1)	1	2	3	4
Low (2)	2	4	6	8
Medium (3)	3	6	9	12
High (4)	4	8	12	16

Responses				
Cat 2 Low Risk	**Cat 2 Moderate Risk**	**Cat 2 Medium Risk**	**Cat 1 High Risk Imminent**	**Cat 1 High Risk Immediate**
1 - 3 (6 Months)	3 – 4 (28 days)	4 – 7 (5 days)	8 - 12 (24hrs)	13 – 16 (1hr)

When implementing this approach highway safety inspectors will exercise their judgement, discretion and training for deciding whether to record individual defects and in which category to place them. This process adopted triggers the following defect response times:

- Cat 1 (High Risk Immediate).
  Immediate risk to highway safety where urgent repairs required: 1 hour.

- Cat 1 (High Risk Imminent).
  Imminent risk to highway safety where temporary/permanent repairs are required: 24 hours.

- Cat 2 (Medium Risk).
  Defect meets safety inspection manual investigatory level and is likely to become safety critical in less than 28 days: 5 working days.

- Cat 2 (Moderate Risk).
  Defect meets safety inspection manual investigatory level and is likely to become safety critical before the next inspection or in less than 6 months: 28 calendar days.

- Cat 2 (Low Risk).
  Defects meet safety inspection manual investigatory level, unlikely to deteriorate rapidly: 6 calendar months.

Highway safety inspections and associated defect repairs are electronically recorded and documented within the councils Alloy system. The data is updated using mobile technology employing real-time logging of defects.

Vulnerable Users.

Certain physical disabilities such as sight impairment or restricted movement for people using wheelchairs, mobility scooters or pushchairs require consideration to ensure that infrastructure assets remain both safe and serviceable. During highway safety inspections attention is given to the condition of tactile paving modules installed at pedestrian-controlled crossings, and kerb alignments in the vicinity of designated dropped kerb crossing points. Major footway maintenance schemes being delivered across the borough routinely seek opportunities to improve facilities for vulnerable highway users as an integrated part of the works designed.

Cyclists are also regarded as vulnerable users due to their elevated risk of head injuries from incidents or collisions which may occur. On-highway cycle routes are maintained in accordance with hierarchy and safety inspections and consider the following:

- Where carriageway cycle lanes are established, particular attention is given to ensure drainage gullies, valve covers, inspection chambers, standing water, vegetation & tree roots do not pose hazards to cyclists and that the road surface is in good general repair and free from potholes.
- Carriageway cycle lanes often necessitate the use of additional traffic signs, road markings, and coloured surfaces where appropriate. These should remain visible and be kept in serviceable order.
- Programmes of resurfacing will wherever practical, consider the needs of cyclists to help make the existing highway network 'cycle friendly', support national cycling strategies and promote regional and local travel priorities.

On designated cycle lanes marked out along an existing carriageway, potholes in the channel will be risk assessed, and repairs will be considered to mitigate the level of risk identified. Road gulley gratings should be of the flat type and laid reasonably flush to the road surface. Where other types of gratings exist, they may be replaced during programmed maintenance work.

When designing new cycle lanes, regard for road surface condition is considered and if the existing carriageway is poor, but the rest of the road is good, inlaying the cycleway with materials offering good frictional properties will be considered where appropriate as part of the scheme, and checks will be made on the position and condition of any ironwork within the cycle lane.

The surface of cycle - routes is crucial to its acceptability by cyclists. New surfaces should give good ride quality, being smooth and free from bumps and depressions. Where it is possible for a paving machine and compaction plant to gain access to a cycle route (e.g., alongside the carriageway) hot laid asphalt's may be used, where this is not possible textured and smooth bituminous materials will be considered.

Dropped kerbs across cycle routes should be reasonably flush with the carriageway or accesses, particularly where cyclists will cross them obliquely. Drainage should reduce the ponding of water or the accumulation of grit, silt or obstructions on the cycle route.

It is the responsibility of adjacent landowners to trim hedges from the edge of cycle routes at a minimum of at least once each year. If landowners fail to cut back overhanging foliage

the council may serve notice on them to carry out the work within a reasonable timeframe or undertake the work and charge the landowner, if required.

Where the natural hedge line is within half a metre of the edge of the carriageway a second trim could be required. Arrangements may be established to cut back publicly maintained land and to undertake routine sweeping on cycle routes giving due consideration to seasonal variations where identified needs dictate.

Network Condition Surveys:

The purpose of these inspections is to collect data so that the council can monitor highway condition at a strategic network level, measure performance and track asset value. The data collected is used for asset lifecycle planning which supports the compilation of future maintenance programmes.

The specialist nature of highway condition surveys requires Walsall Council to procure the service through the private sector, using consultancies employing accredited:
survey personnel; survey vehicles; survey collection devices/software; data processing platforms.

The council undertakes the following scheduled highway condition surveys:

- Surface Condition Assessment for the National network of Roads Surveys: Classified Roads.
- Coarse Visual Inspection Surveys: Unclassified Roads.
- Grip Tester Surveys: Classified Principal A Roads.
- Detailed Visual Inspection Surveys: High Amenity Footways.
- Footway Network Surveys: Low Amenity Footways.

The data collected is processed and analysed using the councils UKPMS pavement management software. It informs the council regarding asset condition for its long-term decision making, enabling trend analysis and informing lifecycle planning and investment modelling activities. The data contributes to regional working practices with neighbouring West Midlands authorities & Transport for West Midlands, including the compilation of funding bids for the maintenance of the region's local roads and Key Route Network.

Scheduled highway condition surveys generally collect the following:

- Surface Condition Assessment for the National Network of Roads (SCANNER).
  Machine surveys that collect data on transverse and longitudinal profiles, texture, rutting and cracking of carriageways. They are undertaken using specialist survey vehicles with real time processing for site condition readings.

- Coarse Visual Inspections (CVI).
  Driven inspection surveys carried out from a slow-moving vehicle designed to cover large parts of the network by categorising lengths of features having generally consistent defectiveness.

- Detailed Visual Inspections (DVI).
  Walked inspection surveys carried out on streets that incorporate high amenity footways where more detailed inspection is required.

- Footway Network Surveys (FNS).
  Walked inspection surveys carried out on streets that incorporate low amenity footways where less detailed routine inspection is required.

Critically, these inspections don't identify individual defects and their risk, instead they gather general condition data to help support informed decision making around investment needs.

- Grip Tester
  Machine survey used to collect skidding resistance data especially for higher risk event situations due to speed, geometry, bends, steep gradients, major junctions and pedestrian crossing locations on Classified Principal A Roads. The council analyses data in line with the West Midlands Skidding Resistance Strategy to associate on-site grip values with accident records. Specialist consultants are engaged for setting and reviewing Investigatory Levels to secure the professional competency skills required.

Service Inspections:

This inspection category focuses on whether the network meets the needs of users. It includes inspections for regulatory purposes intended to maintain network availability, reliability and integrity, including:

- New Roads and Street Works Act 1991 (NWSRA):
  Utility companies operate under statutory powers, NRSWA co-ordinates and controls their works. Under Section 72 of the Act Highway Authorities are empowered to carry out investigation to check if an undertaker complies with the duties placed upon it for reinstatement of streets. The legislation is supplemented by the Permit Scheme (England) Regulations 2007. Key inspection procedures specifically provided for within the Act include:

  Sample Inspections:
  This involves inspections of a structured random sample of various stages of excavation, reinstatement, and completion.

  Defect Inspections:
  A procedure for dealing with individual reinstatements which do not comply with reinstatement specification, including joint inspections between the council and utilities undertakers to determine the remedial actions required.

- Bridge Inspections:
  General bridge inspections are scheduled to be carried out across two-year cycle, although some structures may be subject to more frequent inspections depending on risk, condition, construction or accessibility.

  Principal Bridge Inspections are also carried out as appropriate following occurrences of crash damage and flooding, or on all major structures at six-yearly intervals.

Bridge inspections may be undertaken using external consultants via a framework contract where essential competency requirements need to be met.

- Street Lighting, Illuminated Signs and Bollards:
  As part of Walsall's Public Lighting Private Finance Initiative, maintenance of electrical components is carried out by Amey LG Ltd, who undertake optical inspections; electrical testing; lamp changing at scheduled intervals to coincide with internal inspections and cleaning.

- Fences and Barriers:
  Inspecting and testing of safety fences/barriers with respect to mounting height, surface protection and structural condition are carried out where road traffic accident damage is suspected or where tensioning of pre-tensioned units is required.

The approach developed for 'Asset Inspections and Condition Standards' is designed to meet the Code in the following ways:

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

4. Asset Performance.

The council has an established Corporate Performance Management Framework, which recognises we are here to support the people of Walsall and all other stakeholders. Maintenance is undertaken using scarce public funds, so investment decisions need to be made from an informed position to generate opportunities for maximising efficiency wherever possible. Performance management frameworks aim to provide clarity, consistency and intelligence led decision making, helping the council to identify and manage risks and meet corporate visions and objectives. Embedding effective performance management provides:

- Defined and prioritised goals ensuring resources are targeted and allocated effectively and efficiently.
- Outcomes are more clearly identified for local people.
- Ensure the council and its partners achieve what they set out to do.
- Establish an evidence base against which to benchmark improved decision making and optimised resource allocation.

For tracking and measuring the delivery of outcomes, the service data compiled must be sufficiently robust to connect frontline services with the strategic objectives of the council, so that priorities are delivered by taking the actions required to meet the needs of customers. Where data or the review of data relates to 'network safety' specialist consultants shall be engaged whenever competency requirements dictate needs.

The quality and accuracy of data is paramount, especially where it highlights customer needs and shapes the priorities of the council. Poor quality data could lead to the council targeting the wrong priorities, skew performance measures and mislead decision making.

Through highways asset management planning the council aims to identify:

- Where we are and where do we want to be?
- How should we do things?
- How are we doing things?
- How might we need to act differently?

Module D of the council's Highway Asset Management Strategy – Performance Management, outlines 'targets and measures' for our most significant asset groups, and defines Red, Amber and Green levels of associated risk. This performance dashboard helps to guide the council by focusing its strategy and investment into areas that most positively impact upon the highest-level drivers, where greatest risks may lie.

Wherever practical, the council uses nationally recognised, industry acknowledged and accredited forms of data collection for performance monitoring measures to establish the condition of key infrastructure assets. This includes the United Kingdom Pavement Management System and outputs from the National Highway & Transportation Survey (NHT) and associated Customer Quality Care analysis (CQC).

These Performance monitoring mechanisms help the council to monitor levels of:

- Resilience of the network.
- Vibrant and healthy public realm.
- Safe, serviceable and sustainable network.
- Network accessibility.
- Open engagement and communication with stakeholders.

The performance data compiled and managed by the council is periodically reviewed to ensure it achieves the desired robustness and reliability on a number of levels, including:

- Survey instructions to consultants and contractors.
- Selection/appointment of inspectors, consultants and contractors.
- Training/accreditation for inspectors, consultants, contractors and systems.
- Specification of procurement and surveys.
- Survey procedures and auditing processes.
- Data collection devices and software.
- Data processing software.
- Maintenance and calibration of survey equipment.
- Environmental and sustainability needs.

Current asset performance monitoring undertaken in support of highway infrastructure management activities by the council includes:

- RCI 130-01 Condition of classified Principal A roads.
- RCI 130-02 Condition of classified Non-Principal B & C roads.
- BVPI 224b Condition of unclassified roads.
- BVPI 187 Condition of high amenity footways.
- FNS HI Condition of low amenity footways.
- DfT Skidding Resistance survey.
- DfT Carriageway work done survey.
- NHT Network Public Satisfaction survey
- NHT Customer Quality Cost survey.
- APSE Performance networks road asset management data survey.
- ALARM Annual Local Authority Road Maintenance Survey.
- HISC Contract Key Performance Indicators (KPI's).
- Contact Centre Complaints monitoring.
- Insurance Public liability claims monitoring.
- Contractor Scheme satisfaction monitoring.
- HAMFIG West Midlands regional benchmarking.
- Kaarbontech Gully cleansing performance dashboard.
- GIS Work history, engineering programme inspections, complaints, Public Rights of Way, on highway cycle tracks.
- Velocity Patch Performance dashboard.

The council's Highway Infrastructure Services Contract (HISC) employs a robust set of contract Key Performance Indicators (KPI'S) and Operational Performance Indicators (OPI's) to measure, monitor, and manage service delivery, including:

- People, staff and social values.
- Financial performance.
- Health & Safety, environment & recycling.
- Structural, preventative, emergency, reactive and cyclical maintenance.
- Winter maintenance.
- Bridge maintenance.
- Major and minor improvements scheme monitoring.

The data feeds into the performance management framework and informs highways asset management decisions within a systematic and transparent framework to support our key financial planning decisions using lifecycle modelling predictions wherever practical. It also supports the development of the council's Highway Asset Management Strategy and associated maintenance management improvement planning processes.

The approach adopted to measure, monitor and review 'Asset Performance' is designed to meet the Code in the following ways:

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 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 long-term investment.

5. Maintenance Strategies, Programmes and Priorities.

The council's highway infrastructure management responsibilities span across a diverse range of asset groups, including: carriageways; footways; street lighting and illuminated bollards; bridges and structures; drainage; street signs; urban traffic control; high friction surfaces; street furniture; barriers and guardrails.

The priorities for asset types are most often determined by the outcome of safety inspections, service inspections, or condition surveys, each assessed using appropriate risk factors. Any maintenance responses required will normally fall into one of the following categories:

- Programmed Maintenance.
  Providing forward works programmes using lifecycles and condition data as part of a prioritisation matrix where practical, such as structural or preventative maintenance schemes.
- Planned Maintenance.
  Attending to defects and other less urgent matters that may benefit from further planning leading to permanent repair, such as localised patching repairs.
- Emergency/Reactive Maintenance.
  Attending to defects and other safety matters that require urgent action, such as a missing road gully cover. The responses provided shall depend upon operational practicalities which may include fencing off and guarding, or repairs of a temporary nature where required.
- Routine/Cyclical Maintenance.
  Providing locally defined levels of service, such as gully cleansing.
- Regulatory Functions.
  Relating to occupation, interference or obstruction of the network, such as statutory undertaker's street works co-ordination.
- Winter Services.
  Providing locally defined levels of service, such as precautionary salting runs or the provision of grit bins.

The council's Corporate Budget Process, and Treasury Management & Investment Strategies identify high level budget proposals. The council then determines how the funds available to it for highway maintenance should be allocated across many different asset groups and selects the most appropriate and beneficial maintenance activities for each asset type. The treatments and timing of intervention are determined by identifying the most efficient means of meeting the required performance targets.

Modules G and H of the Highway Asset Management Strategy outline the approach for the development of maintenance strategies. Compilation of forward works programmes are based around an understanding of current asset condition, associated risks, lifecycle needs, and the likely social/commercial impacts of our works.

Developed strategies are reviewed to accommodate where practical new treatment options, materials, or technological developments that come onto the market. Where financial resources are limited, potential maintenance schemes may need to be prioritised for places within forward works programmes.

Programmed Maintenance.
The council's largest maintenance funding commitment is directed at its carriageway and footway structural resurfacing programmes, which are compiled using a Cabinet endorsed programme prioritisation tool which considers a range of risk related factors, including:

- Local priority
- Commercial impact
- Social impact
- Safety inspector priority
- Partnership management priority
- Road classification
- Road hierarchy
- Traffic sensitivity
- United Kingdom Pavement Management System ranking.
- Engineering Inspection ranking
- Reactive repairs
- Risk & insurance claims
- Public service requests, defect reports, enquiries
- Delayed/deferred schemes
- Co-ordinated schemes – including cross asset requirements
- Estate management schemes
- Optimised intervention timescales

Priorities are reviewed annually to provide a costed long-term programme by scoring each scheme which can then be used to evaluate needs for potential maintenance locations, with sites posing greatest risks being considered for treatment. From this, the annual carriageway and footway maintenance programmes are developed and published on the council's website.

To facilitate consideration of both the current and future maintenance costs associated with the delivery of planned maintenance schemes, the council has developed and embedded a robust Highway Maintainability Audit procedure.

Preventative Maintenance.
Lifecycle modelling and industry best practice guidance such as the 'HMEP Potholes Review - Prevention and a Better Cure', endorse that intervening at the right time will significantly reduce the number of potholes forming and will help to prevent bigger and more costly structural problems occurring later.

Prudent management of carriageway and footway assets requires the use of cost-effective preventative maintenance treatments such as micro surfacing and surface dressing. Although not always initially popular with residents or highway users, preventative treatments combined with targeted planned patching programmes form an essential maintenance strategy for extending the life of carriageway and footway surfaces across the borough's highway network.

The council develops flexible and responsive preventative maintenance programmes annually, using processed condition data and engineering inspections, which can be integrated within focussed estates management strategies.

Emergency/Reactive Maintenance.
Emergency and reactive maintenance includes rectifying Category 1 and Category 2 defects and other matters requiring attention, arising from inspections or public complaints. Such defects often involve a degree of urgency, with some having the potential for serious consequences for which priorities will almost exclusively be determined based on risk to define the operational practicalities for:

- Signing, guarding or protecting to make safe.
- Providing an initial temporary repair.
- Providing a permanent repair.

For other key asset groups such as street lighting and illuminated signs/bollards, the council secured the services of Amey LG Ltd through a Private Finance Initiative (PFI), which started in April 2002 and will operate for a 26-year period. The main aim of the PFI was to replace ageing lighting stock, improve road safety, and reduce the fear of crime.

All major structures, bridges and culverts are managed in accordance with the recommendations set out in the Design Manual for Roads and Bridges. The council undertakes principal bridge inspections every six years and general inspections every two years. The current forward works programme considers the findings of structural inspections and is also influenced by the national transportation emphasis for the primary route network and historical levels of capital funding, which has sometimes resulted in the need to impose certain weight restrictions and other interim measures at some locations.

The approach adopted for the development of ‘Maintenance Strategies, Programmes and Priorities’ is designed to meet the Code in the following areas:

<u>Recommendation 6 – An Integrated Framework.</u>
The highway network should be considered as an integrated set of assets when developing highway infrastructure maintenance policies.

<u>Recommendation 13 – Whole Life / Designing for Maintenance.</u>
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.

<u>Recommendation 30 – Cross Asset Priorities.</u>
In developing priorities and programmes, consideration should be given to prioritising across asset groups as well as within them.

<u>Recommendation 31 – Works Programming.</u>
A prioritised forward works programme for a rolling period of three to five years should be developed and updated regularly.

6. Risk Based Practices.

The Code encourages councils to account for the management of current and future risks associated with highway assets and embed this within its approach to asset management. This ensures that strategic, tactical and operational risks are considered, and appropriate mitigation measures implemented.

The council considers risk management for 'significant' elements of its highway maintenance management planning, including: procuring services; investment modelling; operations; information management; setting levels of service; resilience; safety and condition inspections; and for determining localised defect repair priorities or establishing forward programmes of work.

Walsall's risk-based approach is founded on:

- Aligning the council's legislative requirements and corporate objectives against the management of risk.
- Recognising risk for the highway service and the likely significance for users.
- Managing inventory to support effective service delivery.
- Establishing flexible hierarchies, levels of service and making cases for funding.
- Investing in staff & consultancy services to secure competency, & monitoring performance to make informed procurement decisions for delivering services.

Organisationally the council has developed a Corporate Risk Management Strategy which outlines the governance arrangements set in place for risk management and the processes embedded throughout the council. All managers within the council have a role to play in the identification of risks within their own areas of activity and expertise, including: service delivery, project risks, strategy, and the effective management of those risks as part of Annual Governance Statement processes.

Independent assurance and scrutiny of the adequacy of the risk management strategy and processes rests with the Audit Committee. It is the role of the Audit Committee to seek assurance that action is being taken to identify and manage risks effectively and that the strategy and processes that underpin this are appropriate and fit for purpose.

Risk Management Policy Statement.
"It is the policy of the council to identify, analyse and economically control the risks that threaten the objectives (strategic & operational) or assets of the council".

The aims in achieving this are to:

- Ensure that service delivery is not disrupted.
- Provide a safe environment for those who come into contact with the council.
- Take all reasonable steps in the management of risk.
- Protect the assets of the council.

When implementing this, the policy requires the council to:

- Identify significant risks that threaten the objectives or assets of the council.
- Evaluate the consequences of the identified risks for the council in terms of their likelihood and impact.
- Take reasonable steps to reduce the likelihood and/or impact of the identified risks. Where it is not economically prudent to control identified risks further, we will: retain the risk where it is economically advantageous to do so or transfer the risk to a third party via contract or an insurance arrangement.
- Establish a corporate risk management strategy and processes.
- Provide training, guidance and support to officers and inform members to help them understand and implement the policy in a consistent manner.

A key goal for risk management is to allow business risks to be taken within a structured and transparent framework that encourages the taking of appropriate risks. The risk management process is the tool that is used to demonstrate that risks have been considered in an appropriate, structured and consistent manner. The council recognises that there are risks associated with many its activities and that it has a duty to manage these risks in a balanced, structured, and cost-effective manner.

The council's highway Asset Management Strategy identifies the key components of risk processes relating to the highway infrastructure by identifying the framework that engineers have developed for: communication, consultation, and monitoring mechanisms, using the principles outlined within the council's corporate risk management cycle.

For the development of its asset management strategies the council has worked jointly with leading experts in asset management planning. As part of this collaboration consultants were commissioned to conduct a maturity assessment of the council's compliance with the Code of Practice via a series of workshop to identify any significant gaps in existing practices.

The maturity assessment was used to direct Walsall's Highways Asset Management Strategy toward greater adoption of risk-based planning methodologies. The strategy employs a modular approach that seeks to apply risk focus to the core issues of highway asset management planning, including: highway infrastructure performance management and benchmarking framework's; asset information and competencies strategies; lifecycle planning and investment modelling for optimised maintenance strategies.

Its strategic overview is intended to provide the council's asset managers and custodians of resources with the data required to make informed decisions about the needs of highway assets over the long term, so that the potential impact of significant decisions can be predicted, understood and reviewed.

Risk based decision making supports our approach to highway infrastructure management from the highest strategic and tactical levels through to the individual defects on the ground. It is not practical to eliminate all risk, instead the council aims to reduce it to acceptable levels and set in place any mitigating actions that may be beneficial to manage it.

The approach adopted for managing 'Risk Based Practices' is designed to meet the Code in the following areas:

Recommendation 7 – Risk Based Approach.
A risk-based approach should be adopted for all aspects of highway infrastructure management, including setting levels of service, inspections, responses, resilience, priorities and programmes.

Recommendation 8 – Information Management.
Information to support a risk-based approach to highway management 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.

Recommendation 14 – Risk Management.
The management of current and future risk 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.

7. Competency.

Highway infrastructure management requires appropriate levels of competency for many activities involved. The council's approach to staff performance is detailed within its 'Workforce Strategy 2023-2026'. It acknowledges a "planning for the workforce of the future" approach by focussing on 5 key drivers, including: economic; people; internal focus; children and communities to deliver 'Proud Promises and embed (PLATE) values & behaviours.

Competency is a measure of our ability to undertake work effectively, professionally and safely, whilst meeting: legislative; environmental; industrial; technical; procedural and good practice guidance. The council needs to ensure that it can attract and retain the best talent in which to deliver its services and undertake its duties.

Highways Infrastructure Management covers a diverse range of asset groups, including:

- Carriageways and footways.
- Drainage and floodwater management.
- Street lighting, road signs and road markings.
- Bridges and structures.
- Urban Traffic Control (UTC).
- Arboriculture maintenance, verges and trees.
- Road safety, traffic regulatory functions and street works co-ordination.
- Car parks.
- Resilience planning and winter maintenance.
- Public Rights of Way and cycle ways management.

For all staff, competency is a critical factor considered from the initial recruitment stage onwards. Employee specifications and job descriptions are carefully focussed to meet the precise roles, responsibilities and duties required.

Walsall liaises with its regional highways partners to help identify core competencies for the West Midlands districts into the future. Internally, the council provides a web-based electronic learning and development framework for all of its staff, offering a suite of training packages designed to ensure that key corporate training competencies are met regarding:

- Equality, safety and wellbeing.
- Directorate specific training.
- Personal development.
- Information & Communication Technology skills including General Data Protection Regulations.
- Financial processes.
- Workplace skills.

Engineers possess appropriate levels of formal qualification in line with competence and ethics guidance outlined by The Engineering Council as the UK's regulatory body for the engineering profession. Including industry knowledge and practical experience required to enable them to undertake their work professionally, effectively and safely.

Depending on service areas staff gradings, this may include:

- BTEC: Level 3 diploma (Built environment–civil engineering); Ordinary & Higher National certificate/diploma in civils related fields.
- Certificate/diploma in road safety engineering.
- Bachelor's degree: civils, construction, structural or electrical engineering.
- Post graduate degree in engineering related fields, BSc, MSc, PhD.
- Membership of professional bodies or institutes, including ICE; IHT; IHE; IStrucE; ILP.

The Council routinely appraises its employees through 'Continuous Improvement Conversations' (CIC's), which delivers an ongoing performance review process throughout the year, with timely feedback to support development and improvement. It connects learning with performance to empower individuals to lead their own personal development to improve performance through continuous feedback, goal tracking and regular reviews.

Budgets are available to fund bespoke training initiatives where needs assessments confirm their requirement. Competency frameworks help to reinforce our maintenance management functions by encouraging levels of Proficiency, Experience, Knowledge and Awareness (PEKA):

Where dedicated systems, equipment, technology, skill sets and knowledge are required to deliver specialised highway infrastructure management services, private sector consultants may be engaged to gain access to competencies and skills that are needed. In such cases the council will make appropriate checks to ensure that the required competency from consultants is assured through evidence of qualifications, training, accreditations or experience. The council currently engages consultancy support for work-streams such as highways asset management planning and skidding resistance network definition and accident association.

For highway safety inspections, the council ensures that its highway safety inspectors are trained to 'LANTRA' certification standards and that they are conversant with risk-based decision-making methodologies and industry best practice guidance and innovations.

For network level highway condition surveys the council currently requires surveyors to hold valid United Kingdom Pavement Management System survey accreditation certificates for Coarse Visual Inspections, Detailed Visual Inspections and Footway Network Surveys, Whilst machine surveys including the setting of Investigatory Levels (I.L's) for skidding shall be subject to Transport Research Laboratory, Grip tester/Surface Condition Assessment for the National Network of Roads appropriate professional certifications.

Network level carriageway and footway highway condition survey data is collected on site, stored and processed using compliant data collection and data processing software subject to and passing UKPMS annual health check certification.

Network classification and hierarchies were identified through a systematic review process undertaken by experienced specialist pavement management consultants. The council provided all necessary GIS mapping data appropriate to support classification judgements. Individual street classifications are subject to routine on-site reality checks from highway inspectors as an integral part of the council's highway safety inspection regime.

Engineers, transport planners, and highway safety inspectors receive Construction Design & Management Regulations 2015 (CDM 2015) training, ranging from general awareness sessions through to client and principal designer roles as appropriate, supplemented with Institute of Occupational Safety & Health (IOSH) working safely training to consolidate health and safety awareness for staff delivering highway infrastructure maintenance management projects.

The council recognises DfT's Road condition data and technology review: position paper published in August 2021 and its PAS 2161 guidance, which encourages greater flexibility around how highway authorities might choose their surveying technologies to best support their asset management strategy. The council remains committed to adapting its approaches to embrace new working practices once their effectiveness, resilience and best value have been adequately established.

Politicians, senior managers, asset managers, safety inspectors and general practitioners who are directly involved with delivering highway maintenance management activities recognise the guidance principles of the Code of Practice and its recommendations for risk-based decision-making processes.

Where the case for funding can be established, the council promotes in-roads for trainee engineers, providing funded training opportunities to graduate engineer levels and for professional institute memberships. This will remain a tangible measure of the council's commitment to the youth of our local communities and the civil engineering community in general.

The approach adopted to ensure workplace 'Competency' is designed to meet the Code in the following areas:

<u>Recommendation 15 – Competencies and Training.</u>
The appropriate competency required for asset management should be identified, and training should be provided where necessary.

8. Resilience, and Extreme Weather Procedures.

Resilience as defined by the Cabinet Office is the “ability of a community, services, area or infrastructure to detect, prevent, and if necessary to withstand, handle and recover from disruptive challenges”.

The council’s highway network is vital to enable the successful operation of the boroughs social and economic activities, so the continued availability and operation of its key routes is essential to keep the borough moving at an acceptable pace.

The Transport Resilience Review acknowledged that an economically rational approach should be taken to spending on resilience, ensuring that enough is invested, with the right prioritisation, and avoiding wasteful and economically unjustified expenditure. For this reason, there is a need to focus resilience risk on a sub-set of the network which constitutes the resilient network to ensure it provides:

- Connectivity between major communities.
- Links to the strategic highway network
- Connectivity across authority boundaries.
- Access to emergency facilities including Fire; Police; Ambulance and Hospitals.
- Links to transport interchanges or critical infrastructure.
- Principal public transport routes.
- Local community facilities.

The risk of a specific asset failure leading to closure or restriction of the Resilient Network also needs to be considered along with the socio-economic consequences of failure and potential for community severance.

Network Resilience is particularly significant for winter maintenance as highlighted in the Climate Change Risk Assessment (CCRA) and the Governments National Adaption Programme (NAP), which call for highway authorities to consider how climate change variables including intense/prolonged rainfall, hotter temperatures and higher wind speeds will impact on highway assets, and the risks associated with such events occurring.

In accordance with The Flood and Water Management Act 2010 Walsall Metropolitan Borough Council is the Lead Local Flood Authority (LLFA). Section 19 of the Act places responsibilities on the authority to manage the risks of flooding from surface water, ground water and ordinary watercourses, with a duty to investigate serious flooding incidents.

The Act also imposes a statutory duty of co-operation between the council as LLFA and other flood risk management authorities, such as The Environment Agency and Severn Trent Water.

Formal investigations under Section 19 of the Act are triggered when flood events meet or exceed locally agreed criteria. For consistency Walsall MBC has adopted the same thresholds stated and outlined in the ‘Local Strategy for Flood Risk Management – The Black Country’ (issued October 2015).

The Strategy broadly 'comprises of' and 'applies' the following investigatory criteria:

- An event where five or more residential properties, or two or more non-residential (industrial/commercial) properties have been internally flooded.
- An event where a flooding problem is recurring and is supported by records or anecdotal evidence as having occurred more than once in a 10-year period for any given location.
- An event where threat to life and/or threat of injury or harm has occurred.
- An event which affects an area or community with a concentration or high proportion of vulnerable people.
- An event which impacts on critical infrastructure (water, sewage treatment, electricity/gas distribution, telecommunications and the strategic transport network) in excess of 12 hours before restoration of service.
- An event which impacts on essential services (emergency services, NHS, local or central government services) in excess of 12 hours before restoration of service.

As Local Highway Authority Walsall Council also has responsibility for providing and managing highway drainage. This includes maintenance of gullies and associated infrastructure. There is a general requirement that any road maintenance projects being designed and delivered should not increase potential for future risks of flooding.

Across Walsall gullies are managed, cleansed and maintained using the Kaarbontech Gully Smart system, which is a hosted on-line platform that provides real-time information to engineers out in the field dealing with flooding events across the borough. Gullies in known hotspot flooding locations can now fitted with rain sensor technologies that can monitor water levels on an hourly basis and hold analysis data for the previous 90 days.

The council has robust and well-established procedures set in place to prepare for and respond to severe weather events. Key staff are registered with the MET Office for storm alerts. When severe weather warnings are received via e-mails and texts, procedures are firmly embedded to mobilise the emergency response resources required, including provision for staff absences, weekend cover, Bank Holidays and out of hours emergencies.

Meteorological forecasts and weather information are critical for the council's risk based operational planning responses; these are normally based on colour coded descriptions:

- Yellow – Be aware, there is a small chance of…
- Amber – Be prepared, there is likely to be…
- Red – Take action, there will be…

The Environment Agency has also developed a similar system for flood warnings:

- Flood Alert – Flooding is possible, be prepared…
- Flood Warning – Flooding is expected, immediate action required…
- Severe Flood Warning – Severe flooding, danger to life…

Following receipt of 'weather alerts' information is distributed to Walsall's highway contractor, the contact centre, resilience team, senior managers, clean & green and other key responders required to support on-site delivery of operational responses to mitigate the risks arising from severe weather events and emergencies.

Precautionary procedures followed for areas known to be at high risk of flooding may involve:

- Place Fast Response Crew(s) on stand-by, equipped with road closure signs.
- Check watercourse trash grids are clear of debris.
- Clear any affected watercourses.
- Clean any affected road gullies.
- Arrange for known flooding locations to be swept in preparation for incoming storms.
- Arrange for a mechanical sweeper to be placed on out of hours stand-by to provide emergency support when and where required.

The Council reviews its responses to severe weather events to identify potential improvements against our severe weather and operational service plans/procedures, using lessons learned and risk-based principles. All storm related and flooding incidents reported to the Councils contact centre are logged, responded to, and analysed as required.

For incidents falling outside the scope of Section 19 procedures Walsall MBC employs a principal engineer dedicated to investigating issues relating to drainage infrastructure assets. Wherever practical, sites are prioritised and assessed for bespoke solutions to deliver value engineering responses to mitigate the risks of flooding.

Actions may include camera surveys; additional cleansing of existing drainage runs; repairing broken pipes damaged by tree roots or utility works; localised re-profiling of carriageway and footway thresholds to remove ponding; raising kerb upstands to improve longitudinal surface water flows; drainage network investigations to identify pipe runs to natural watercourses including culverted systems running through open ground. These procedures are directly supported by a dedicated annual budget proportionate to needs and responsive to any major scheme implementation works being needed.

Walsall MBC's Resilient Highway Network is published within the council's Winter Service Operational Plan and further information is available for extreme weather events in the council's Emergency Plan and a range of other community focussed documents.

The emergency planning procedures published on the website set out the council's procedures and approaches for winter policy, resilience standards, meteorological forecasts, precautionary salting and service delivery decision making processes.

The documents published on our web pages and the real-time travel information publicly released by the council's communications team enable residents and stakeholders to make informed decisions about how and where they should travel during severe weather events and transparently identifies the support procedures which are set in place.

The resilience/emergency planning webpage provides detailed information and advice around a range of risk events, including hot/cold weather, flooding, and communications, it defines Walsall's role as a Category 1 Responder under the Civil Contingencies Act 2004.

The approach adopted for 'Resilience and Extreme Weather Procedures' is designed to meet the Code in the following areas:

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 Adaption.
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 by the authority's Civil Emergency Plan. A Severe Weather Emergencies Plan should 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.

9. Sustainability and Environment.

Highway infrastructure maintenance has a significant role to play in achieving a sustainable economy, as reflected in the Governments sustainability agenda. Sustainable construction is about designing and delivering works that meet the needs of the present, without compromising the ability of future generations to meet their own needs.

The Department for Transport publication 'Sustainable Highways: A Short Guide' identifies that for highway maintenance to be delivered sustainably there must be a focus on maximising the use of recycled arising's from existing roads wherever possible.

Furthermore, materials, products and treatments for highway infrastructure maintenance should be appraised for environmental impact and for the wider issues of sustainability.

Environmental management strategies need to encourage the consideration of:

- Carbon costs and energy reduction.
- Noise reduction.
- Material choices.
- Waste management and recycling options.
- Air quality and pollution control mechanisms.
- Nature conservation, biodiversity and environmental intrusion.

To co-ordinate and influence the design of maintenance and improvement schemes in the Borough, engineers have developed and embedded 'Walsall's Highway Maintainability Audit (WMHA)'. Its objective is to ensure that all materials and treatments selected or specified conform to the Design Manual for Roads and Bridges (DMRB), Highway Authority Product Approval Scheme (HAPAS), and other relevant British or retained European Standards.

The purpose of the Maintainability Audit is to give clear guidance to ensure that as far as reasonably practicable that future maintenance implications are considered at the earliest possible stage during any highways project. It provides a framework so that whole-life maintenance implications of highways projects are systematically considered, including:

- Selecting materials that will be durable and functional.
- Selecting materials from sustainable/ethical sources, that can be matched and replaced easily.
- Reduce street furniture and unnecessary clutter.
- Recycle to reduce the need for virgin aggregates.

The maintainability audit draws attention to lifecycle considerations, including:

- Scheme design life and compatibility with the surrounding highway.
- Suitability of the design and materials for predicted traffic use.
- Are the materials likely to be readily available across the life cycle.
- Are the materials likely to fade or discolour, will they be resilient to contamination.
- Can surfaces be cleaned easily.
- Have recycled materials been considered.
- Are there any special engineering difficulties.
- Have co-ordinated works opportunities been explored.

The key deliverables arising from the Walsall Highway Maintainability Audit include:

- Reduced remedial works and associated congestion.
- Reduced routine maintenance requirements.
- Better knowledge for future planned maintenance operations
- Better surfaces to walk, cycle and drive on.
- Lower waiting times for repairs using materials from regular suppliers and reduced needs to carry varieties of stock items as alternative products.

The council routinely recycles machine planed arising's for use as sub-base material when delivering planned maintenance schemes across the borough, and where durability requirements can be satisfied, consideration is routinely given to the use of Low Energy Asphalts (LEA's) for resurfacing works.

During 2024/25 Walsall has pro-actively worked in collaboration with Transport for The West Midlands and the West Midlands Combined Authority to refine regional carbon management strategies by adopting a systematic framework for calculating carbon costs. The Future Highways Research Group (FHRG) carbon analyser tool is part of the ADEPT/Proving Research Partnership and Live Labs 2 project which aims to consider the impact of planned and reactive workstreams with the goal of decarbonising construction for the maintenance of local roads.

Heritage Assets.

The Council has developed a comprehensive log of Designated Heritage Assets across the borough, which includes scheduled monuments, listed buildings and conservation areas.

A range of Supplementary Planning Documents are also published to link legislation and policy frameworks to both design processes and environmental considerations, including for our key district centre locations.

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Minimising Clutter.

The councils published online 'Walsall's Way Ahead – Wayfinding Strategy Document' sets out the strategy adopted to aid mobility across the borough, including the key district centres. The strategy embraces and encourages a declutter approach.

Our on-going maintenance and sign replacement programmes endorse the strategy wherever practical, with over 700 items of obsolete street furniture having been removed historically in response to prevailing national guidance and local priorities.

The approach adopted for 'Sustainability and Environment' is designed to meet the Code in the following areas:

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 be met 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 other redundant items should be taken into account when planning highway infrastructure maintenance activities.

10. Engagement and Communicating with Stakeholders.

Highways network stakeholders consist of residents, visitors or anyone using our highway network whether for business or pleasure, including:

- Pedestrians, motorists, motor cyclists and cyclists.
- Bus/taxi operators and their passengers.
- Freight vehicle drivers and haulage operators.
- People with disabilities.
- Equestrians.
- Residents and landowners adjoining the highway.
- Emergency services.

How the council engages, communicates, and informs customers is delivered through a variety of channels including:

- Consultation.
- Participation and empowerment.
- Service pledges & service standards.

The council developed its consultation protocol: Our Approach to Preparing for Consultation (Sept 17). The protocol affirmed Walsall's commitment to listening and responding to the residents and businesses of the borough to inform decision making processes, providing vital service information, and collecting feedback.

The Roads, parking and travel website is the primary interface for stakeholders to find out about and contribute to council services. It provides multiple links to top level folders including:

- Cycling.
- Highway investment, highway maintenance and pothole reporting.
- Parking.
- Public Rights of Way.
- Public transport and red routes.
- Road safety.

Further information and guidance are provided through sub-links for a range of service matters, including:

- Council services/provision
- Policies, strategies and improvement initiatives
- Service standards
- Funding streams
- Major schemes
- Defect reporting

To monitor highway infrastructure service delivery the council participates in a National Highways and Transportation (NHT) survey conducted by IPSOS Mori, supplemented by the Customer Quality Costs (CQC) survey which measures: customer satisfaction levels; work quality issues; value for money and stakeholder perception.

This information is considered alongside APSE and ALARM benchmarking data to help us target those areas where improvements may be desired, and to develop a better understanding of how we are performing against what our stakeholders are actually expecting from us.

Feedback for all services is also accessible through Walsall's Comments, Compliments & Complaints webpage. Customers can also contact the council by telephone during working hours and for out of hours emergencies at any time by calling 01922 650000 or online using the links available on the council's website.

Service Standards are published on the council's roads, parking & travel website and on other suitable outlets in the form of: policy; strategy documents; route maps; service leaflets; project leaflets, providing the information required to enable the public to understand in qualitative terms the levels of service they can reasonably expect from the highways maintenance service.

The approach adopted for 'Engaging and Communicating with Stakeholders' is designed to meet the Code in the following area:

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.