# 1 INTRODUCTION

This document sets the strategic direction that Shropshire Council will adopt in how highway infrastructure assets will be managed and how the Highway Infrastructure Asset Management Policy will be followed. The Policy is a high-level document that confirms the Council's commitment to Highway Infrastructure Asset Management.

Asset Management is a process of stewardship that seeks to get the most out of the assets for the benefit of stakeholders. It acknowledges that assets have a life cycle where these respond to their environment and normally deteriorate with use. It allows the Council to understand how the assets are performing, what levels of investment are needed and to manage risks. The process improves transparency and accountability, and should result in better value for money and improved customer service.

This strategy considers what is required in terms of asset management activities (the framework) as well as what is required for each type of asset in order to meet the challenges identified. It applies to all who manage Shropshire Council's highway infrastructure.

The highway network in Shropshire is extensive, comprising over 5,100 km. The network provides essential links between communities and key services. Strategic routes provide connections between the main towns within Shropshire and beyond as well as connections to the national Strategic Road Network.

The highway network is an intrinsic part of life in Shropshire. It supports all of the Council's ambitions. Moreover, it is critically important to our communities and local businesses.

The highway network supports almost all travel in Shropshire whether by motor vehicle, public transport, cycle or on foot. For many rural communities, there exists few reasonable routes to connect them with key services. When these are not available, the communities can be subject to long diversions or even severed from services. The resilience of the highway network is therefore vital.

## 2 ASSET MANAGEMENT FRAMEWORK

An Asset Management Framework has been adopted in line with the current best practice as shown in Figure 1.

The framework sets out how asset management planning operates at the Council. Each area of the framework (Context, Priorities, Planning, Enablers and Asset Group Strategies) is covered in this Strategy. More detailed, technical asset management plans support this strategy and provide a more focussed service-level description of the approach.

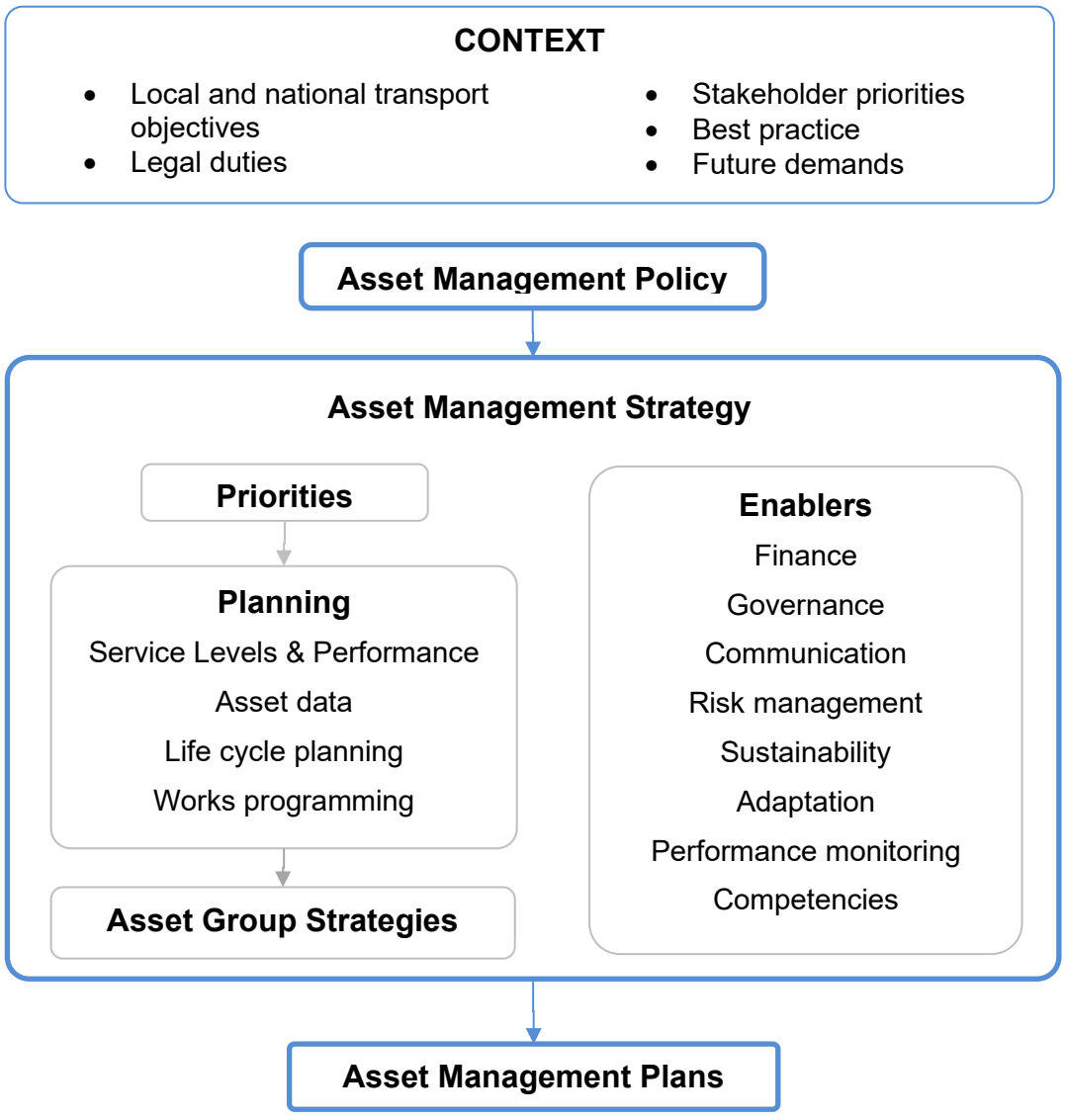



**Figure 1. Asset Management Framework**

# 3 CONTEXT

## 3.1 What are highway infrastructure assets?

Highway infrastructure assets work as a system of elements to facilitate journeys and create a place. There are many different types of highway infrastructure asset and the main asset groups are carriageway, footway, street lighting, traffic signal, structures (bridges) and drainage.

Each asset performs a specific function and as such contributes to the overall level of service. These are discussed in more detail in the asset group strategies.




**Figure 2. Types of Highway Infrastructure Assets**

In addition, other highway infrastructure assets are present including: signs and lining, highway trees, street furniture, road restraint systems; these other assets are also covered by this strategy.

Some infrastructure assets on the highway are owned or managed by third parties; these are not covered by this strategy. Examples of such assets include: covers for access to utilities, bus shelters which may be managed by town or parish councils, and railway bridges which are managed by Network Rail.

The highway network in Shropshire has evolved over generations rather than having been constructed to known standards. Consequently, knowledge about the network is incomplete and the network itself is highly diverse in terms of its characteristics and performance, leading to areas of strength and vulnerability. This diversity needs to be understood in order to best manage the condition of the asset.

**Table 1. Summary of the highway infrastructure assets**

| Asset Group | Asset Type | Quantity | Unit |
|---|---|---|---|
| Carriageways | A Roads | 450 | km |
| | B & C Roads | 2325 | Km |
| | Unclassified Roads | 2340 | Km |
| Footways and Cycleways | Footways | 1,597 | Km |
| | Cycleways | 70 | Km |
| Structures | Bridges and large culverts | 835 | Number |
| | Small bridges and culverts | 175 | Number |
| Street Lighting | Street Lights | 20,329 | Number |
| | Illuminated Signs and Bollards | 2,822 | Number |
| Traffic Signals | Signalised crossings | 85 | Number |
| | Zebra crossings | 75 | Number |
| | Junctions | 44 | Number |
| Drainage | Gullies and Catchpits | 92,278 | Number |

## 3.2 Stakeholder priorities

The Council participates in the National Highways and Transportation (NHT) Public Satisfaction survey. This survey is sent to a random sample of residents each year and allows the Council to benchmark its performance across a range of themes with other Councils. As part of this survey, people are also asked how important different aspects for Highways and Transport are and how satisfied they feel about them. This knowledge will help set the priorities for this strategy.

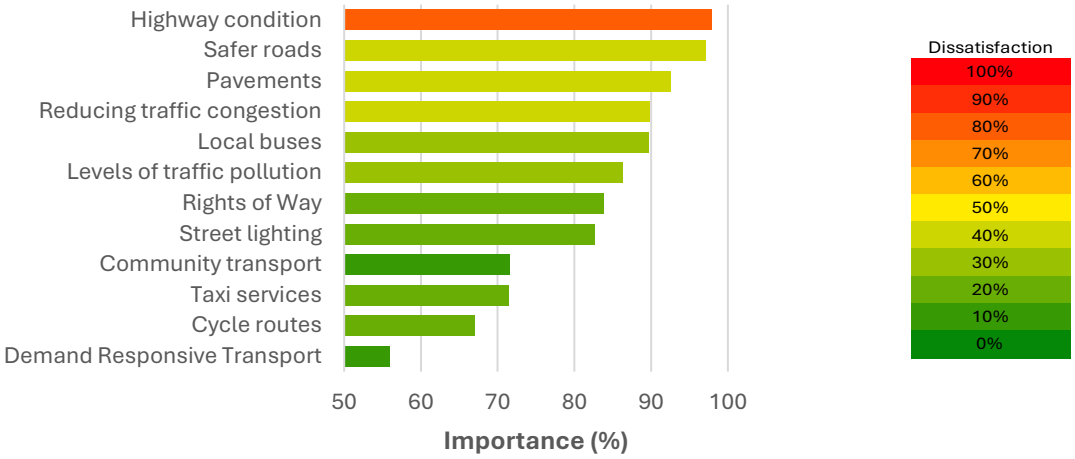



**Figure 3. Importance and Satisfaction**

The most important aspects to our residents (in order) are highway condition, safer roads and pavements. Furthermore, the aspect that needs most improvement is highway condition.

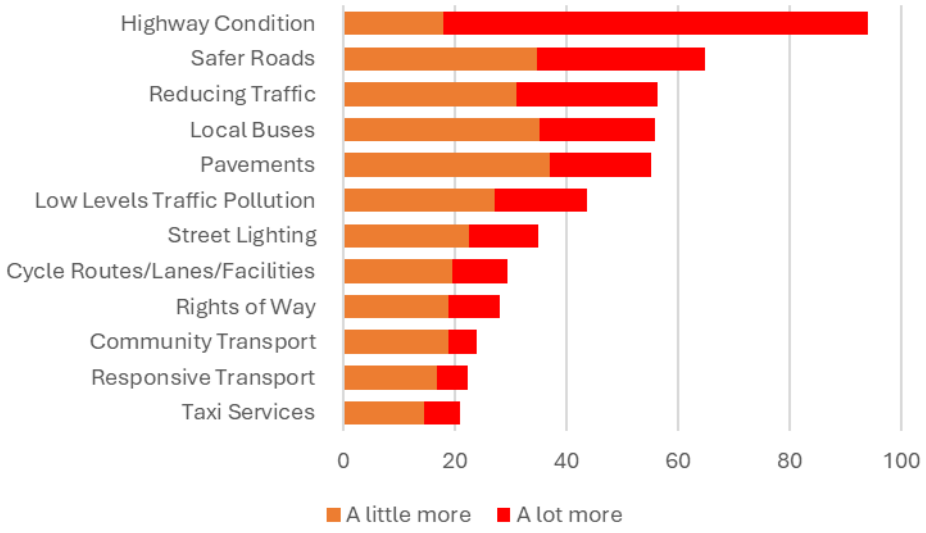



**Figure 4. Percentage of people advocating more spending by aspect**

Figure 4 indicates that almost all residents want more money to be spent on improving highway condition. Spending more money on safer roads was also indicated.

The NHT survey has specific sections which assess the level of satisfaction against many aspects of roads (carriageways) and pavements (footways), as well as the activity of highways maintenance. The top three aspects which require improvement in these areas are:

| Roads | Pavements | Highways maintenance |
|---|---|---|
| Speed of repair to damaged roads | Speed of repair to damaged pavements | Deals with potholes and damaged roads |
| Condition of road surfaces | Pavements being kept clear of obstructions | Cuts back overgrown hedges or trees |
| Quality of repair to damaged roads | Weed killing on pavements | Deals with flooding on roads and pavements |

There is a clear theme of investing in roads and footways and repairing potholes and damage properly.

Keeping pavements clear of obstructions such as overgrown hedges and trees is also important to our residents, as is routine work such as maintaining drainage and weed killing.

### 3.3 Local objectives

This Highway Infrastructure Asset Management Strategy is aligned and supports the priorities of the Shropshire Corporate Plan (2026 - 2030). The six priority ambitions of this plan are:

- People live in safe, inclusive places with homes that meet their needs.
- Everyone has the opportunity to be healthy and to thrive at every stage of life.

- Communities that are connected by well-maintained roads, accessible transport and infrastructure. Focussing on tackling potholes and improving the condition of our roads.
- An environment that harnesses our natural assets, and supports wellbeing.
- A Council that is financially sustainable, with clear priorities and purpose, and a workforce supported to excel.
- A thriving economy that benefits everyone.

The priorities in this strategy have also been aligned with the emerging Local Transport Plan 4, the following statements reflect the currently proposed plans.

- We will improve road safety for everyone in Shropshire.
- We will make walking, wheeling and cycling the best choices for local journeys.
- We will ensure the long-term quality and resilient of our transport system through appropriate investment and maintenance. In particular, improving the condition of walking, wheeling and cycling routes so they are safe, reliable and easy to use.
- We will protect our natural, built and historic environment from the negative impact of traffic and transport.

These ambitions and priorities have been aligned with the Level of Service in this Strategy.

### 3.4 National transport objectives

Highways that are managed by the Council are also a component of the national highway network. Central government, is a key stakeholder in the local highway network in terms of investment and the wider role it has as part of the national highway network; it has its own political and strategic objectives. The Council must acknowledge national objectives in addition to local needs to ensure that it continues to meet its duties and optimises the opportunities for funding from central government.

The Department for Transport require local highway authorities to report on a range of outcome indicators including estimates of carbon emissions for their Local Transport Delivery Plan; this requires the establishment of robust processes for the quantification and reporting of carbon emissions.

The Department for Transport are requiring local highway authorities to prepare public Transparency Reports as part of their Incentive Element regime. Using the information provided in the Transparency Reports, the Department is also rating authorities according to the condition of local roads, how much each authority is spending on maintenance and how effectively each local highway authority is following best practice.

### 3.5 Legal duties

In managing highway infrastructure, the Council has to comply with many legal duties. Those duties that are specifically aimed at the authorities, such as the Highways Act (1980), are the responsibility of the elected members. The key duties from legislation are listed in Table 2.

**Table 2. Key duties around the management highway infrastructure**

| Legislation | Places a duty on the Council to… |
|---|---|
| Highways Act (1980) | Maintain highways and to take all reasonable care to ensure that highway is not dangerous to traffic |
| Traffic Management Act (2004) | Keep traffic moving |
| Road Traffic Act (1988) | Promote road safety and to undertake studies to reduce the risk of accidents |
| Flood and Water Management Act (2010) | Investigate the causes of flooding and to undertake measures to reduce flood risk as the Lead Local Flood Authority. |
| Wildlife and Countryside Act (1981) | Protect flora, fauna, and the countryside. |
| Environmental Protection Act (1990) | Manage waste, control pollution and prevent nuisances. |

There is other legislation that applies to the Council more generally; these can also be the responsibility of Council Officers and Service Providers. Such legislation covers Health and Safety, Equality, Human Rights, Civil Contingencies and other local government legislation.

### 3.6 Best practice

This strategy aligns with the current Code of Practice "Well-managed Highway Infrastructure" published in 2026. The Code states that authorities should establish and maintain an Asset Management Framework that supports the effective delivery of highway services and long-term stewardship of infrastructure assets.

A range of best practice guidance is available such as 'Inclusive Mobility - A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure', 'Designing for Walking - CIHT' and 'Cycle Infrastructure Design - Local Transport Note 1/20'. It is noted that much of this guidance is about new infrastructure rather than the maintenance of existing infrastructure; however, these documents will be used to seek opportunities for the improvement of highway infrastructure whilst delivering the core objectives of this strategy.

### 3.7 Future demands

Highway infrastructure assets are typically in service for 25 years or more. For the planning of new, maintained or replacement assets, the future demands on the assets must be considered.

An environment that harnesses our natural assets, and supports wellbeing is a Council ambition. Protecting our outstanding natural environment and our historic built environment is a key part of our asset management approach. This priority will be addressed by considering the impacts of maintenance on biodiversity and planning work to maximise sustainability; an

example of this would be to invest in preventative maintenance to prolong the life span of assets.

Shropshire Council has declared a climate emergency. Reducing the impact of managing highway infrastructure on climate change is a priority, we will adopt proven low carbon technologies and consider the whole-life carbon impact of our maintenance decisions.

The effects of climate change are accepted as inevitable with hotter, wetter summers and a greater incidence of severe weather that will likely lead to a greater need for resilience. In addition to a strategic resilient network, an understanding of how the network can keep communities connected will be important both in planning maintenance and planning emergency response during severe weather. In additional there will be a need to protect highway surfaces from accelerated deterioration due to the effects of flooding and ice by maintaining a sealed surface and keeping drainage working.

The development of the highway network will add roads and footways that will also create additional structures, drainage, lighting and signals. The nature of Shropshire has meant that the impact of this development, compared to the size of the network is limited.

The nature of the traffic is expected to change. This will affect customer expectations about the asset and also the rate of deterioration. The key changes that are envisaged are:

- The migration to more active travel will mean that the relative importance of the condition of footways and cycleways to highway users will be increased.
- Motorised traffic loading will change. It is anticipated that the number of vehicles will increase, in particular the use of light goods vehicles for home deliveries. In addition, the migration away from internal combustion engine vehicles are likely to result in heavier vehicles with greater torque that will likely increase the demand on road surfaces.
- The use of larger agricultural vehicles and HGVs serving rural businesses will place additional loading on the most vulnerable parts of the network.

## 4 PRIORITIES

The priorities for the management of highway infrastructure assets have been formed to support the Local Transport Plan actions.

### Priority 1: We will improve road safety for everyone in Shropshire

Repairing damaged roads and footways is the main area for improvement highlighted by stakeholders. Our primary focus will be reducing the number of potholes on the network through:

- Having a focus on preventative maintenance;
- Targeting investment at reducing pot holes;
- Prioritising permanent rather than temporary repairs; and
- Reducing the risk of flooding on the highway.

Where potholes appear, we will:

- Inspect the defects and assess the risk for repair;
- Remedy the defect on time according to risk;
- Implement an agile regime to allow reactive work to be remedied by planned work if needed; and
- Where there are significant potholes, investigate whether drainage cleaning would prevent further potholes from appearing, and then clean

We will continue to manage the risk of wet-skidding accidents on main roads and we will use special surfaces at locations where they are most effective.

### Priority 2: We will ensure the long-term quality and resilience of our transport system through appropriate investment and maintenance

Our priorities are:

- Improving the condition of walking, wheeling and cycling routes so they are safe, reliable and easy to use.
- Focussing on improving the condition of Strategic Roads, Main roads, Rural Link Roads.
- Maximising the available funding for highways maintenance by meeting the Department for Transport's Incentive Fund criteria.

Longer term, we will seek to understand how changes to traffic are impacting on the long-term needs our highway network by gathering intelligence. The study will particularly look at the impact of agricultural traffic and commercial vehicle use.

## Priority 3: We will make walking, wheeling and cycling the best choices for local journeys

Our priorities are:

- Improving the condition of walking, wheeling and cycling routes so they are safe, reliable and easy to use.
- Using our powers to ensure the highway is available for all by removing obstructions on footways, dealing with overgrown hedges or trees and ensuring that crossovers do not unduly impact on the use of footways and cycleways.

Longer term we will seek opportunities to rebalance road space during maintenance and consider how maintenance of highway infrastructure can positively influence the choice of public transport, walking and cycling.

## Priority 4: We will protect our natural, built and historic environment from the negative impact of traffic and transport

We will protect the environment by:

- Considering the way that roadside verges are managed;
- Selecting maintenance treatments that are appropriate to the street;
- Carefully considering how work in the programme can be adapted to mitigate noise in sensitive areas;
- Working in partnership with National Highways to reduce air pollution; and
- Supporting active travel.

We will tackle climate change by:

- Making decisions to reduce our carbon emissions using an evidence-based approach; and
- Reviewing Transport Policy and contracts to promote low carbon options.

We make sustainable choices by considering the whole life impacts of our decisions.

# 5 PLANNING

## 5.1 Levels of service and Performance

Levels of service are simple statements that describe the performance of highway infrastructure assets in terms that stakeholders can understand. Performance measures are used to demonstrate the levels of service and are defined in the Performance Management Framework.

Objectives and Levels of service have been defined based on the key aspects of highway maintenance as set out in the Code of Practice, these have been aligned to the Council's Local transport actions in Table 3.

**Table 3. Service Levels**

| Local transport action | Maintenance objective | Level of service |
|---|---|---|
| We will improve road safety for everyone in Shropshire | Network Safety | Complying with statutory obligations<br><br>Meeting users' needs for safety as well as roadworks and other parties |
| We will make walking, wheeling and cycling the best choices for local journeys<br><br>We will ensure the long-term quality and resilience of our transport system through appropriate investment and maintenance. | Network Serviceability | Ensuring availability<br><br>Ensuring integrity<br><br>Maintaining reliability<br><br>Resilience<br><br>Managing condition |
| We will protect our natural, built and historic environment from the negative impact of traffic and transport. | Network Sustainability | Minimising cost over time<br><br>Maximising value to the community<br><br>Taking positive action to protect the environment |
| | Customer Service | Communication<br><br>Engagement |

The levels of service are monitored using the Performance Management Framework.

## 5.2 Asset data

Asset data is information on what physical highway infrastructure assets an authority has responsibility for and includes number, location, performance, financial value and customer feedback.

We will actively manage asset data so that the authority can:

- define the type and number of highway infrastructure assets;
- monitor performance;
- make effective and informed decisions;
- manage risk;
- determine the required level of investment; and
- comply with statutory requirements.

We ensure that all data is created according to the requirements set out in an asset data management plan that:

- sets out detailed requirements for the creation of asset data;
- identifies how asset data is stored in asset data systems;
- identifies which stakeholders use the asset data and for what purpose it is used;
- explains how asset data is to be maintained, the currency and accuracy of data will be confirmed by regular data audits; and
- sets out how redundant asset data is disposed; whether data be deleted or archived.

### 5.3 Lifecycle planning

Asset management requires the long-term consideration of the impact of investment and maintenance strategy; this is called lifecycle planning. Life cycle plans enable the council to:

- Understand the future performance of highway infrastructure assets and wider impacts for different levels of investment and different maintenance strategies. Wider impacts will include the effect on the environment, carbon emissions and future resilience.
- Determine the level of investment required for an appropriate maintenance strategy to achieve the required performance or the performance that will be achieved for defined level of investment.
- Support decision making, the case for investing in maintenance activities and demonstrate the impact of different funding scenarios.
- Minimising costs and environmental impacts over the lifecycle while maintaining the required performance.

Lifecycle plans can vary in complexity. Life cycle plans will be maintained that are appropriate to level of investment and risk associated with the asset group.

### 5.4 Works programming

An integrated works programme will be maintained covering all capital investment in highway infrastructure. The programme includes forward plans, work in preparation and the annual works programme.

The integrated works programme allows for work to be shared with stakeholders in advance including external stakeholders. Sharing knowledge and future plans enables work to be coordinated internally and with third parties, reducing risks to all involved. In addition, sharing allows for early engagement with local communities, increasing transparency and ensuring that limited resources are targeted in the right place.

The annual works programme will be made available on the Council website.

# 6 ENABLERS

## 6.1 Finance

### Sources

Maintenance of highway infrastructure is funded according to whether it improves the asset (capital) or simply ensures that it continues to function (revenue). Capital funding is typically provided by central government or through public borrowing. Revenue funding that supports routine maintenance is supported by locally raised revenues and central government grants.

For the period 2025/26 to 2029/30, the Department for Transport have split the funding for highways maintenance into a baseline level of funding and an 'Incentive Element'. The 'Incentive Element' of funding is conditional on criteria that must be met by local highway authorities and is a significant proportion of the overall available investment; it is therefore an essential part of fulfilling the objectives of this strategy.

For the creation of new highway infrastructure, capital funding is most commonly secured from local developments but can also be secured for specific projects from central government funding.

### Asset valuation

Whole of Government Accounting (WGA) principles allow infrastructure assets to be valued using a consistent methodology across all types of public assets. Under WGA, the value of a bridge can be robustly compared to the value of a school. His Majesty's Treasury are seeking to adopt WGA across all public sectors.

For highway infrastructure asset management purposes, WGA provides a useful overall value for the assets but also a measure of the in-year consumption. The in-year consumption of the asset can be used to assess whether the current level of funding is correct.

### Balancing funding priorities

The majority of capital funding for highway maintenance investment comes from the DfT Highways Maintenance Block allocation. The initial budget is apportioned by DfT according to a needs-based formula.

Life cycle planning is used to understand the budget needs against the initial budget and the long-term risks that this presents, such as the effect on whole life costs and future performance. The initial budget is the adjusted to manage these risks.

In addition, many other factors are considered to determine the allocation of budgets for work. These include:

- coordination of schemes with work by internal and external stakeholders;
- ensuring that schemes help achieve the local transport objectives;
- managing known delivery risks; and
- addressing community concerns.

## 6.2 Governance

The Portfolio Holder for Highways and Waste is the sponsor for the asset management approach set out in this strategy. They, along with the wider Council, are the senior decision makers.

The Asset Management Group lead on the use of the asset management approach. The group is formed of asset leads and covers all aspects of the asset management framework including regular updates for risk management and performance.

Progress with delivering the Highway Infrastructure Asset Management Strategy is monitored annually to ensure it remains aligned with network needs, statutory requirements, and the wider transport and Council priorities. This monitoring is overseen by the Asset Management Group and reported to the Head of Service.

## 6.3 Communication

The Council has a number of channels to receive feedback. Service requests can be made using the Council website or the Customer Service Centre. Social media is monitored to understand what the public is saying about the service in general.

In addition, the Council participates in the National Highways and Transportation public satisfaction survey. This survey asks a randomly selected sample of our residents about levels of satisfaction with a range of services including those relating to the service provided by highway infrastructure.

For planned work, the Council collaborates with its alliance partners to ensure that appropriate communication is made to the right stakeholders at the right time using the right channel. These channels include letter drops, website and social media notifications and data published on Roadworks.org.

## 6.4 Risk management

The Council have embraced a risk-based approach to all aspects of highway maintenance and as such, it is a corner stone of this strategy. Our risk-based approach to highway infrastructure management is to:

- maintain alignment with the Council's corporate and local transport objectives, legislative requirements, and the corporate approach to risk and management of risk;
- develop an understanding of risk throughout the highways service and its application to all areas of operations, including people, infrastructure, data, finance and suppliers;
- develop an understanding of the potential risks and their likely significance to users, stakeholders, the authority and to the asset data and information held;
- ensuring that our asset data adequately reflects the function, criticality, sensitivity, characteristics and use of our highway infrastructure assets;
- establishment of functional hierarchies and levels of service with appropriate funding.
- ensure that the appropriate competencies have been used to develop and implement of the risk-based approach; and

- undertake regular evidence-based reviews of risk.

Risks arising from the management of highway infrastructure assets that affect the achievement of the Council's ambitions are reported using links with the corporate risk register which is managed in line with an Opportunity-Risk Management framework.

### 6.5 Resilience and adaptation

Climate change is already affecting our highway network. Wetter winters, hotter summers and more frequent storms are putting pressure on all parts of highway infrastructure. By pro-actively adapting to these changes, we can improve our resilience and avoid higher maintenance costs.

The risk from climate change will be considered within investment planning, design and maintenance delivery. This could be choosing maintenance treatments that limit the impact of hot temperatures, identifying and preparing high risk locations that can be affected during bad weather and adjusting our winter service to better support active modes of travel.

Resilience is also about keeping communities connected and supporting local businesses. We have identified a resilient network that we invest in to ensure that it remains available during times of disruption. The resilient network is formed from main roads that keep towns connected and other roads that provide access to key services and is regularly reviewed to ensure that it continues to reflects the most critical elements of network.

We will define a network that better reflects how communities are connected that will allow the Council to give focus to the parts of the network that have the greatest value to local communities. This network will be developed through engagement with Town and Parish Councils.

### 6.6 Sustainability and the environment

The Council has set in place a climate change strategy and our asset management activities remain aligned to this strategy.

The maintenance of highway infrastructure can contribute significantly to carbon emissions through the installation of materials and transport operations. To support local goals on carbon reduction we will be guided by an intervention hierarchy of carbon reduction potential:

- Build and maintain nothing - Can the asset be decommissioned or not yet replaced?
- Build and maintain less – Using asset data and preservation techniques to time interventions so that the maximum life of treatments is achieved
- Build and maintain clever – Design to using low carbon materials and replace only the optimum amount of the asset
- Build and maintain efficiently – Embrace new technology and eliminate waste.

In accordance with national policy, the Council is implementing processes for carbon quantification across all local transport activities. This initiative will enable the Council to make decisions that reduce carbon emissions in the early stages of scheme development and it will also allow the setting of baseline levels from which improvements can be monitored. Decisions

will be made by considering the whole-life carbon emissions associated with highway infrastructure.

Shropshire Council are trialling a number of changes to the way the roadside verges are managed. These changes include identifying existing wild flower areas and reducing the frequency of cutting in these areas, as well as creating new wild flower areas. The Council will monitor the success of these actions and, if successful, incorporate them into our routine maintenance plans.

Road noise can be nuisance to residents. We will consider the strategic road noise maps produced by DEFRA under the European Noise Directive to identify potential benefits of investing in lower noise solutions in sensitive areas.

There are two Air Quality Management Areas in Shropshire. It is recognised that road traffic on Shropshire's network and National Highways network is a major source of pollutants. The Council's approach to reducing air pollution is to work in partnership with National Highways, supporting active travel and to promote the use of EVs through the provision of EV charging points.

The conservation and enhancement of streets can provide high value to the community and local economy. In undertaking maintenance, the Council will consider the risks and opportunities locally for the choices it needs to make. In general, maintenance will be selected that is appropriate for the street and funded from existing funding sources; exceptionally additional funding can be used to enhance specific parts of the highway.

### 6.7 Performance monitoring

A Performance Management Framework links the priorities of this strategy to the levels of service. This framework is built on statutory condition indicators, local performance reporting and customer satisfaction measures. Performance is monitored as part of the formal review of this strategy in order to assess progress in delivering the objectives and to recommend improvement.

All the indicators are reviewed at least annually as well as on-going monitoring of monthly measures in line with the overall governance of asset management practice as set out in Section 6.2.

As well as a number of technical performance indicators, the framework includes a number of public interest indicators that are also published on the Council's website.

### 6.8 Competencies

Competencies will be monitored using the UKRLG Asset Management Competency Framework at the authority level, detailed development plans identify actions needed by the role or individual as required.

Competencies and training needs are identified in the highway competency development plan.

## 7 ASSET GROUP STRATEGIES

Concise strategies have been produced for the following main asset classes:

- Carriageways
- Footways and cycleways
- Structures
- Street lighting
- Traffic signals
- Highway drainage systems

For each class of asset, the asset group strategy sets out the extent of the asset, the condition that it is in (if known), an overview of the challenges for that asset class including risks, the maintenance strategy to be adopted and a short statement about the outcomes.

Carriageways form the main element of the highway infrastructure asset, these range from busy A class roads to minor lanes; some carriageways are unmetalled.



## Knowledge

The Council maintains 5,168 km of carriageway. The network is characterised by minor rural roads (70%), urban roads (20%) and strategic links (10%).

More than 12% of roads have deteriorated to a stage that they are 'functionally impaired'. Main A and B roads are in better condition overall than C roads and Unclassified roads. Of particular concern is the condition of C roads where more than 17% could be 'functionally impaired'.

Customer satisfaction with highways maintenance, most notably carriageways, is low.

## Key challenges

- The asset has suffered from years of under-funding leading to aged surfaces which allow water to penetrate and potholes to form. This is a considerable threat on minor rural roads which comprise more than two-thirds of the network.
- Home deliveries, rural diversification and modern farming methods mean that the way the rural network is being trafficked has fundamentally changed.
- Climate change has led to wetter winters (increasing potholes) and hotter summers (increasing the risk of road surfaces melting known as 'fatting').
- The structure of these roads has been evolved rather than designed; consequently, the construction is not consistent even where knowledge of the pavement exists.
- Utility openings are a constant threat to the condition of carriageway surfaces.

## Strategy

- Reactive repairs can be a drain on Council resources, reducing these will enable more longer-term investment in the asset. Reactive repairs should be done 'right first time' and will be replaced with planned maintenance where most appropriate.
- Lifecycle planning will be used to establish a baseline funding requirement for the network.
- Investment shall be targeted using clear evidence, where the money will return greatest return and will also be aligned with the local community needs.
- The type of maintenance will match the function it needs to perform and level of service required.
- The use of preventative surface treatments shall be optimised and these shall be done at the right time.
- Ensuring that drainage systems operate effectively to reduce the impact of water either damaging the carriageway or posing a risk due to flooding. Correct functioning of the drainage is crucial to the preservation of carriageway assets.
- Specialist materials will only be used where fully justified.
- The risk of a wet-road skidding incident will be managed on main roads.

## Outcomes

Carriageway condition is maintained with minimum whole life cost supported by sufficient steady state investment.



Footways and Cycleways facilitate people to travel on foot, by bicycle or 'wheeling'. For many vulnerable road users, footways are their only means to travel and access public transport.

## Knowledge

The Council maintains approximately 1,600km of footways and 70km of cycleways. Although the majority of footways and cycleways are in urban areas, almost a third of footways are in rural areas providing links within and between villages.

The condition of footways and cycleways is good considering the network as a whole but there are minor areas or concern.

Footways are seen as important by Stakeholders with reasonable levels of satisfaction. Key issues highlighted are speed of repair to damaged pavements, pavements being kept clear of obstructions and weed killing.

## Key challenges

- Footways are often blocked by parked vehicles and overgrown vegetation, reducing safe pedestrian space.
- Vehicle overruns cause small but important areas of structural damage. More households want vehicle access, increasing demand for permitted crossovers. Where crossovers are installed without permission, the footway remains weak and is easily damaged.
- Wetter winters linked to climate change lead to standing water on footways, accelerating deterioration.
- Many market-town footways use specialist surfacing materials, which are harder and more expensive to maintain.
- Tree roots and utility openings disrupt footway surfaces and threaten long-term condition.
- Autumn leaf-fall creates slippery surfaces for pedestrians and cyclists.

## Strategy

- Reactive repairs will be completed right first time, and replaced with planned maintenance where this provides a better long term solution.
- Lifecycle planning will define the baseline funding needed for the footway and cycleway network, including identifying special surface footways so their additional costs can be quantified.
- Investment will be evidence based and directed to where it delivers the greatest benefit.
- Maintenance types will be matched to the function of the asset and the required level of service.
- Preventative surface treatments will be optimised and applied at the correct point in the lifecycle.
- A clear process will be established for reporting and managing obstructions on the footway.
- The Council will confirm its policy on crossovers and implement measures to protect the footway network.

## Outcomes

Footway and cycleway condition is maintained at current levels at minimum whole life cost supported by steady state investment.

Highway structures include bridges that carry the highway over obstacles such as water courses or other highways; culverts that allow water courses to pass under highways; retaining walls that retain material from encroaching the highway or supporting the highway itself; embankments and cuttings; and cattle grids.



## Knowledge

The Council inspects and maintains a wide range of structures consisting of 835 bridges or culverts with a span of 1.5 m or greater and 175 smaller bridges or culverts, approximately 1,500 walls retaining a height of 1.35m or greater and 50 cattle grids. There are other minor bridges and culverts that are not inspected as a structure.

The current stock of bridges has an average condition score of 79 (April 2025), which is considered to be in a 'fair' condition.

## Key challenges

- Detailed asset data exists for all types of structures with the exception of retaining walls. The cost of completing the inventory is prohibitive compared to the risk of failure against other priorities.
- Unless the current level of funding is maintained, there is the potential for a rapid decline in bridge condition, leading to an expanded backlog of maintenance and renewal works.
- Climate change will lead to increasingly frequent severe weather events and an increased risk of scour around bridge foundations and other structural damage.
- The materials used in the construction and maintenance of bridges have a large embodied carbon element and options for using alternative materials and maintenance techniques are limited.

## Strategy

- We will continue to meet our statutory duties and maintain the bridge stock in a safe and serviceable condition by undertaking annual routine maintenance and
- We will continue to take a risk-based approach to prioritise our inspection, sub-standard monitoring of weak structures and works programmes in accordance with recommendation in the WMHI Code of Practice.
- We will form a three year strengthening/ replacement forward programme of works.
- Maintenance works schedules and strengthening programmes will be developed using works priority, cost and strategic weighted factors such as network hierarchy (including resilient network), obstacle crossed, heritage status and length of structure.
- Retaining walls will be managed using a reactive regime.
- We will develop life cycle models that will improve our understanding of the long-term impacts of different maintenance strategies on costs and carbon emissions and the level of investment that may be required to achieve our asset management objectives.

## Outcomes

Our aim is to maintain the condition of highway bridges and structures in a good condition.

Street lighting includes all electrical equipment that illuminates features on the highway such as lighting columns, wall-mounted lights, subway lighting, illuminated bollards and illuminated signs.



## Knowledge

Shropshire Council currently maintains 20,329 street lights. Of these, approximately a third are over 35 years old and 88% of the stock are low energy lighting. The majority of the existing columns are mild steel columns, there are also a significant number of reinforced concrete columns (686 or 3.4%).

A planned programme of upgrades has been completed significantly increasing the amount of low energy lighting. As well as reducing energy use, these modern lighting units allow for further efficiencies in their operations.

## Challenges

- An ageing asset with a high proportion of columns reaching the end of their life.
- We have been capturing the cable network for street lighting in recent years to enable scheduled maintenance to be undertaken and plans provided to third parties on request, reducing risks relating to nearby works in the highway. It has become apparent that the type of connection on these networks is significant and we will also be capturing this data.
- Particular types of lighting column, such as concrete columns, are known to pose additional risk of sudden failure.
- A significant number of units are old and contain obsolete parts. When these require replacement, it is often necessary to replace a whole unit rather than a single component.

## Strategy

- Minimise energy costs and carbon emissions by converting all appropriate lighting to LED and employ dimming in part night lighting areas.
- Arrest the decline in the street lighting stock by identifying appropriate levels of investment and prioritising the replacement of aged stock. A life cycle model is used to identify investment levels.
- A risk-based programme of structural testing to be used to identify high risk of failures and replacement columns that fail and inform a prioritised forward programme.
- Monitor higher risk assets and replace if any signs of failure emerge.
- The use of long-life aluminium columns will be considered where appropriate.

## Outcomes

All lighting is upgraded to low energy lighting and deploy part-night lighting where appropriate.

The risk of failure of these assets is minimised.

Traffic signals perform an important role in managing traffic flow, improving safety and providing road crossings for pedestrians and cyclists. This asset group includes all powered equipment in the highway such as Vehicle Activated Signs, Variable Message Sign, rising bollards and Council maintained EV charging points; it excludes street lighting.




## Knowledge

The Council is responsible for managing a wide range of traffic and pedestrian infrastructure, including 44 signal controlled junctions, 85 signalised crossings, and 75 zebra crossings. In addition, it oversees approximately 290 electronic signs, comprising Vehicle Activated Signs (VAS), Variable Message Signs (VMS), school warning “wig-wag” signs, and cattle crossing signs.

## Challenges

- Overall, the traffic signal equipment across Shropshire is in relatively good condition, with only 4% of assets exceeding their 20-year design life
- There are very few junctions and crossings that are low-voltage; this is required for on-site safety.
- Asset data is held in multiple systems. The Confirm system holds much of the asset information needed for the asset management strategy. However, other information lies outside this system, notably in terms of detailed highways inventory information (held in a series of Excel spreadsheets) for Traffic Signals and Electronic signs.
- The maintenance contractor, SWARCO, also uses a bespoke system called ImTrac. ImTrac provides a comprehensive asset, fault and lifecycle management platform for traffic signal infrastructure, enabling efficient maintenance, data-driven decision making, and long-term investment planning

## Strategy

- Continued investment in Shropshire's Urban Traffic Management and Control (UTMC) to ease congestion and improve maintenance response times.
- Upgrade existing junctions and crossings to low-voltages installations
- Undertake planned and cyclic maintenance of the traffic signal asset stock to minimise operating and replacements costs and to extend asset life.
- Identify maintenance needs and funding for a medium-term programme.
- Streamline the management of asset data and ensure that the solution is fit-for-purpose.

## Outcomes

The asset is managed so that the age of the stock is less than 20 years old.

The risk of failure of these assets is managed to within acceptable levels.

This group encompasses a wide range of assets, varying from piped systems to open watercourses, which assist in the council's duty to safely drain the highway and provide opportunities for the council to meet its obligations under the Water Framework Directive.



## Knowledge

Shropshire Council currently maintains around 92,000 gullies and catchpits.

## Challenges

Whilst asset data exists with regard to the majority of highway gullies, information on the associated outfall systems, of various types, into which they discharge is very limited. The collection of such data is high cost and a data collection exercise for the entire asset cannot be justified. A risk-based approach to the collection of highway drainage asset data is therefore taken.

Limited data is available for subterranean assets such as pipework.

The successful operation of this asset group is ensured by revenue funding rather than capital funding.

The Council has moved to a reactive rather than cyclical maintenance regime for drainage. This means that there is limited intelligence on how the asset is performing.

Ditches can be crucial to prevent water on the highway in rural areas, there are often the responsibility of local land owners.

## Strategy

- Use a risk-based approach to establish a cyclical cleansing operation on main roads.
- Ensure that cleansing means ensuring that the whole system is working not simply emptying the sumps.
- Investigate the use of SMART technology to remotely monitor key locations.
- Whenever new drainage assets are provided the as-built details are added to the asset register.
- For the existing highway drainage systems, there are no proposals to record all outfalls; however, where any investigation to improve drainage is required, that information is captured and recorded.
- Continued to deliver drainage improvement schemes using a prioritised programme of work.
- We will continue to work in partnership with other organisations and to deliver other benefits, such as those required by the Water Framework Directive, will also be sought.
- Encourage local land owners to maintain their drainage assets.

## Outcomes

To meet statutory duties and maintain a safe, in flood risk terms, highway by continuing to assess and prioritise high risk flooding issues and programme them accordingly.

Minimising the impact of water on carriageway and footway surfaces.