

Draft Document 2 for Discussion – Highway Infrastructure Asset Management Strategy

The Council is seeking feedback from members through its Scrutiny arrangements to inform policy and strategy development. The following document is part of a compendium intended to both inform and define how the council's highway asset is inspected and maintained.

at

Economy and Environment Overview and
Scrutiny Committee Meeting on
1 September 2026

1 INTRODUCTION

This document sets the strategic direction that the 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 looks 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 associated with these assets. 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 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 road network is therefore vital.

The highway network is an intrinsic part of life in Shropshire. It supports all of the Council's priorities. Moreover, it is critically important to our communities and local businesses whom will have their own priorities. A healthy county needs a healthy highway.

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, Planning, Enablers and Outcomes) is covered in this Strategy for all stakeholders. The review sets out the current state of the asset and is produced at regular intervals, in line with the Council's reporting requirements. More detailed, technical plans and documents support this strategy and provide a more focussed service-level description of the approach.

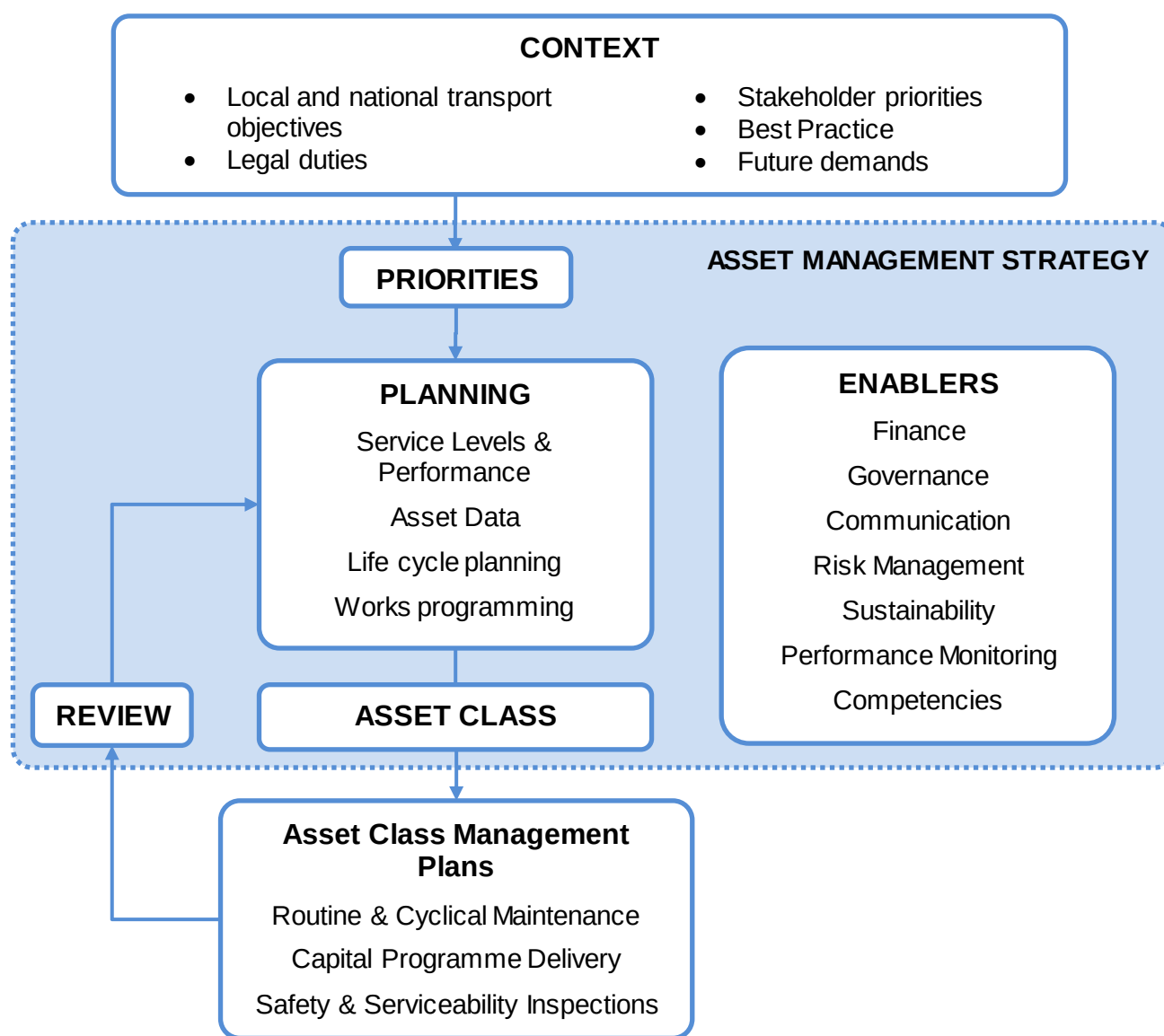


Figure 1. Asset Management Framework

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 summary asset life cycle plans.



Figure 2. Types of Highway Infrastructure Assets

In addition, the following highway infrastructures assets are present including: signs and lining, highway trees, street furniture, road restraint systems. These assets are covered by this strategy but they are not specifically dealt with.

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.

This network 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	1,414	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 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 to them and how satisfied they feel about them. This knowledge will help set the priorities for this plan.

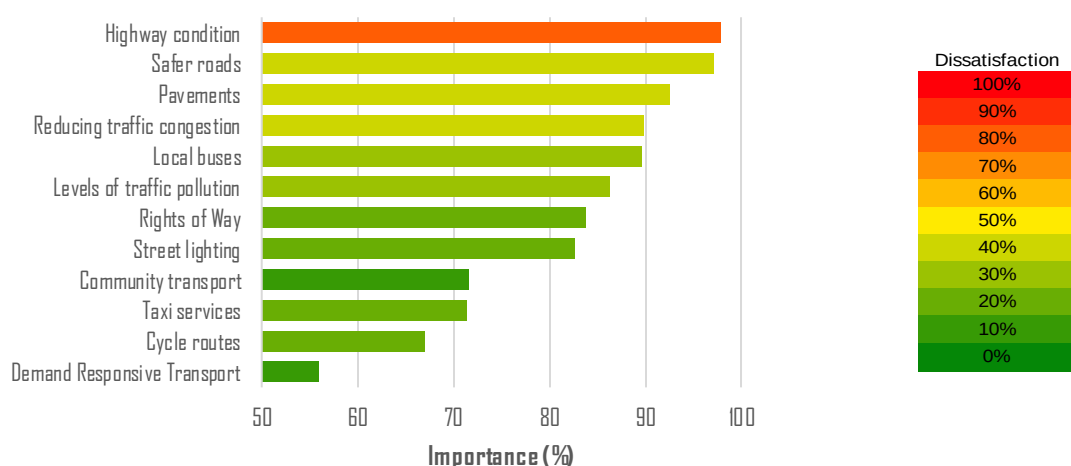


Figure 3. Importance and Satisfaction

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.

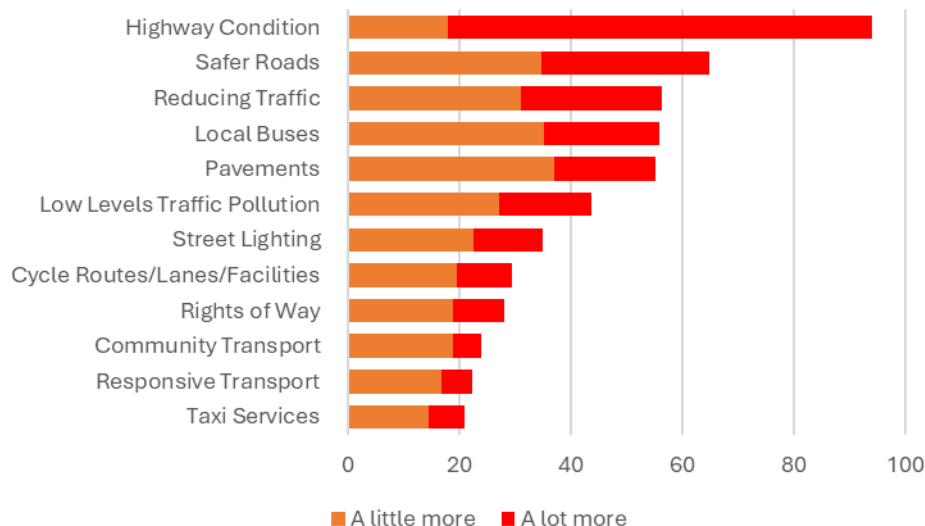


Figure 4. Percentage of people advocating more spending by aspect

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 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 by repairing potholes and damage properly.

In addition, keeping pavements clear of obstructions such as overgrown hedges and trees is important as routine work such as maintaining drainage and weed killing are priorities to our residents.

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 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 Government's plan 'Decarbonising Transport: A Better, Greener Britain' includes the following priorities relevant to this asset management strategy.

- Public transport and active travel will be the natural first choice for our daily activities.
- We will ensure infrastructure will not be a barrier to the zero-emission transition

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 effective 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 Safety Act (1988)	Promote road safety and to undertake studies to reduce the risk of accidents
Flood and Water Management Act (2010)	To investigate the causes of flooding and to undertake measures to reduce flood risk as the Lead Local Flood Authority.

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

3.6 Best practice

Shropshire Council has adopted the code of practice “Well-managed Highway Infrastructure”. The Code is designed to promote the adoption of an integrated asset management approach to highway infrastructure based on the establishment of local levels of service through risk-based assessment.

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. In planning new, maintained or replacement assets, the future demands on that asset must be considered.

A healthy environment is a key priority for the Council. 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. Reducing the effects of

maintenance of climate change is a priority, we will adopt proven low carbon technologies and consider the whole-life carbon impact of our maintenance decisions.

Shropshire Council has declared a climate emergency, therefore the Council's actions to manage highway infrastructure will be crucial in reducing the impact on climate change; moreover, climate change will impact on how the network is managed with hotter, wetter summers and a greater incidence of severe weather.

The effects of climate change are accepted as inevitable and 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 routine maintenance and planning emergency response during severe weather. In addition there will be a need to protect highways 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 create additional 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 our customers 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

Highway Infrastructure Asset Management priorities 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 of improvement highlighted by stakeholders. Our primary focus will be reducing the number of potholes on the network through:

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

Where potholes appear, we will

- Inspect the defects and assess the risk.
- Remedy the defect on time according to risk.
- Implement an agile regime to allow reactive work to be remedied by planned resurfacing if needed.
- Investigate whether drainage cleaning would prevent further potholes from appearing where there are significant potholes, and if so clean out the drainage.

We will continue to manage the risk of wet-skidding accidents on main roads and we will use special 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 Strategic Roads, Main roads, Rural Link roads.
- Improving the condition of walking, wheeling and cycling routes so they are safe, reliable and easy to use.
- Maximising the available funding for highways maintenance by meeting UK Government funding 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 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 considering 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 tackle climate change by

- Seeking to upgrade street lights to LED lighting where appropriate.
- Understanding how our policies and contracts impact on carbon so that low carbon options could be chosen.

We will protect the environment by:

- Considered 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
- Working in partnership with National Highways to reduce air pollution
- Supporting active travel

Longer term, we will make sustainable choices by considering the whole life impacts of our decisions on our natural, built and historic environment.

5 PLANNING

5.1 Service Levels 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 (“Well-managed Highway Infrastructure”), these have been aligned to the Council’s Local Transport actions in Table 3.

Table 3. Service Levels

Local Transport Action	Maintenance objective	Service Level
We will improve road safety for everyone in Shropshire	Network Safety	Complying with statutory obligations Meeting users' needs for safety
We will make walking, wheeling and cycling the best choices for local journeys	Network Serviceability	Ensuring availability Achieving integrity Maintaining reliability Resilience Managing condition
We will ensure the long-term quality and resilient of our transport system through appropriate investment and maintenance.		
We will protect our natural, built and historic environment from the negative impact of traffic and transport.	Network Sustainability	Minimising cost over time Maximising value to the community Maximising environmental contribution
	Customer Service	Satisfaction communication information

The Service Levels 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 public opinion.

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
- 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.
- 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 developed 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 on highways 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 internal and with third parties, reducing risks to all. 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

Funding for highways comes from many sources and is split into two types of funding, capital or revenue. Capital funding is provided by central government or through public borrowing. Revenue funding that supports routine maintenance is supported by locally raised revenues.

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 and is 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 the Local Enterprise Partnership or central government. Maintenance of highway infrastructure is funded according to whether it improves the asset (capital) or simply ensures that it continues to function (revenue).

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

Balancing funding priorities

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

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 Council objectives
- managing known delivery risks
- addressing community concerns

6.2 Governance

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

The asset management approach is led by the Head of Highways. The Head of Highways chairs a monthly Asset Management Group which covers all aspects of the asset management framework (Figure 2) with regular updates for risk management and performance. The Group is formed of the Asset Management leads and representatives from the Highways Alliance.

The Asset Management Group leads on the regular review of the Strategy.

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 highways infrastructure.

For planned work, the Council collaborate with 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 plan. In applying the approach to specific elements of the service, we follow the priorities set out in the Strategy and consider local needs and affordability. Our risk-based approach to highway infrastructure maintenance 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.
- A resilient network and critical infrastructure has been identified; highways infrastructure assets supporting the resilient network are given priority for funding to ensure continuity of service;

- 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 priorities are reported using links with the corporate risk register which is managed in line with an Opportunity-Risk Management framework.

6.5 Sustainability

Sustainability is a thread which links together all of the Council's highway infrastructure asset management activity. It is therefore essential that decision making considers the social and environmental impacts as well as the economic impacts from highway infrastructure.

The Code of Practice sets out the following priority areas from the UK sustainable development strategy, 'Securing the Future':

- Climate change and energy;
- Natural resource protection and environmental enhancement;
- Sustainable communities; and
- Sustainable consumption and production.

This strategy covers how the Council will manage its highway infrastructure assets to address each of these priorities.

Climate change

The Council adopted a climate change strategy and a Corporate Climate Action Plan (Shropshire Council, 2020). This action plan covers all of the Council's activities. The actions that are relevant to the highway infrastructure asset management are listed below with reference to the action number in the plan:

The Council will:

- Seek to upgrade street lights to LED lighting where appropriate.
- Understand how our policies and contracts impact on carbon so that low carbon options could be chosen.
- Prepare a pipeline of bids in advance for active travel funding

The Department for Transport has published a plan called "Decarbonising Transport – A Better Greener Britain" which includes a number of commitments. Of particular relevance for highway infrastructure is the commitment to deliver "the Prime Minister's bold vision for cycling and walking investing £2 billion over five years with the aim that half of all journeys in towns and cities will be cycled or walked by 2030" and "a world class cycling and walking network in England by 2040". Shropshire Council are currently developing a Local Cycling and Walking Infrastructure Plan (LCWIP) which supports the national plan for decarbonising transport.

When planning investment throughout the duration of this asset management plan, Shropshire Council will seek to consider the objectives of the LCWIP as part of the sustainable choices.

For work undertaken on highway infrastructure, the Council will be guided by the hierarchy of carbon reduction potential as presented in the Infrastructure Carbon Review (HM Treasury, 2013). For the highway asset management strategy, the hierarchy will be:

- 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.

Protection of the environment

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 incorporate them into the HIAMP as appropriate.

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 capital funding; exceptionally additional funding will be needed to enhance specific parts of the highway.

DEFRA area have produced strategic noise maps under the European Noise Directive. Using these maps, the Council can consider how work in the programme could be adapted to mitigate noise in high-risk locations. The costs and benefits of reducing noise will be carefully considered.

Shropshire Council has a Local Air Quality Management System and provide reports annually to DEFRA. It is recognised that road traffic on Shropshire's network and National Highways network is the main source of pollutants. The Council's approach to reducing air pollution is to continue to work in partnership with National Highways as required, supporting active travel and to promote the use of EVs through the provision of EV charging points.

Sustainable choices

The majority of investment in highway infrastructure is in maintenance. The Council will consider the whole life impacts of maintenance decisions in order to achieve the highway infrastructure asset management objectives as well as the Council's environmental objectives. Analysis of the whole life impacts will consider:

- The whole life costs including installation, operation, maintenance and, where appropriate disposal
- How to minimise the waste produced during maintenance
- Reducing carbon emissions from operations by improvements in planning and using a lower carbon fleet
- The emitted carbon throughout the lifecycle of the asset

- Opportunities to promote active travel
- The impact of timing of investment
- Opportunities to protect natural resources and enhance the environmental
- Maximising the benefits of highway maintenance for our local communities

To help confirm these choices, a number of sustainability indicators will be included in the performance management framework.

6.6 Performance monitoring

A Performance Management Framework has been defined which links the objectives of this strategy to the levels of service. The 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.

6.7 Competencies

The UKRLG (UK Roads Leadership Group) have published an Asset Management Competency Framework to support the development of appropriate competencies nationwide.

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

Competencies and training needs are identified in a competency development plan.

7 ASSET CLASS 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 lifecycle strategy plan 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 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 are '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.
- Investment shall be targeted using clear evidence to get the greatest return.
- Preventative surface treatments 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.
- Lifecycle planning will be used to establish a baseline funding requirement for the network.
- Correct functioning of the drainage is crucial to the preservation of carriageway assets.
- Reactive repairs should be done 'right first time' and will be replaced with planned maintenance if this is the right treatment.
- Specialist materials will only be used where fully justified.
- The type of maintenance will match the function it needs to perform and level of service required.
- 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 1,400km of footways and 70km 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 of 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 can be easily obstructed by parked vehicles and overgrown vegetation.
- The areas of structural impairment are small but significant. Typically, these are areas where vehicles overrun.
- Home owners require a permitted 'crossover' to access property with a vehicle. Increased demand for parking has led to more crossovers in towns. If the appropriate permission has not been granted, the footway remains weak leading to damage on the highway.
- Climate change has led to wetter winters leading to standing water on the surface.
- A number of footways in our market towns are surfaced in specialist materials. Maintaining these footways can be a challenge and more expensive than other footways.
- Tree roots and utility openings are a threat to the condition of footway surfaces.
- Autumn leaf-fall can create slippery conditions for pedestrians and cyclists.

Strategy

- Investment shall be targeted using clear evidence to get the greatest return.
- Preventative surface treatments shall be done at the right time.
- Lifecycle planning will be used to establish a baseline funding requirement for the footway and cycleway network. This will include the identification of footways with special surfaces so that the additional funding requirements can be quantified.
- Establish a clear process for reporting and dealing with obstructions on the footway.
- Confirm the Council's policy on crossovers and implement improvements to protect the footway network.
- Reactive repairs should be done 'right first time' and will be replaced with planned maintenance if this is the right treatment.
- The type of maintenance will match the function it needs to perform and level of service required.

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.

8 REVIEW

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