Cumberland Council

Highways Asset Management Strategy 2026-2028

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Contents

Foreword

Our roads are the lifelines of Cumberland, connecting communities, supporting local businesses, and enabling people to access work, education, and leisure. As a predominantly rural area, we rely heavily on this network and maintaining it to a high standard is essential for safety, prosperity, and wellbeing.

Cumberland Council faces real challenges: an ageing network, increasing pressure from extreme weather, and limited resources. But the council is committed to meeting these challenges head-on and produced it's first Highways Asset Management Strategy document in August 2023, within the first 6 months of the new authority. This new Highway Asset Management Strategy is in line with the DfT (Department for Transport) commissioned document, Well-Managed Highway Infrastructure: A Code of Practice (The Code) and sets out how Cumberland Council will take a proactive risk-based approach to highway infrastructure maintenance, guided by national best practice and shaped by the needs of residents.

Our focus is clear: putting people at the heart of everything we do. We will deliver safe, resilient, and inclusive highways that support sustainable travel, reduce environmental impact, and keep Cumberland moving, today and for generations to come.

Through innovation, collaboration, and careful planning, the council will make every pound count and ensure our highways remain a strong foundation for thriving communities and a growing economy.

Cllr Denise Rollo

Executive Member for Sustainable, Resilient and Connected Places

Introduction

Cumberland Council has over 3,640km of carriageway and an estimated highway asset value of £4.9 billion.

The highway network is a significant asset that connects people and places across Cumberland contributing to the wellbeing of residents, thriving communities and enabling people to access work, learning and business opportunities to fulfil their ambitions. The council will maintain the highway network to the best possible standard within the available resources, while continuing to pursue all the opportunities we can to secure additional funding for the maintenance and improvement of our highways and transport infrastructure.

Following the formation of Cumberland Council, we have assumed responsibility for assets previously managed by the District and Borough Councils. These assets are now being incorporated into our management systems and include footways, street lighting, verges, and certain carriageways, primarily within industrial estates and similar areas.

Available funds, especially revenue funding, is reducing year on year; therefore, it is now more important than ever to optimise our resources to get maximum value from the highway asset.

This update to our previous Highway Asset Management Strategy is aligned to support the aspirations of the Council Plan and set out our approach to managing the highway infrastructure assets. A separate Highway Infrastructure Asset Management Plan (HIAMP), developed in 2025, outlines how the planning and delivery of highway operations and maintenance support the objectives set out in Cumberland's Highway Asset Management Strategy. It also aligns the work of the Council's delivery partners, informs stakeholders of the processes for identifying and prioritising works, and highlights current constraints, challenges, and areas for future improvement.

This strategy, which has been shaped by stakeholder and customer priorities, will support delivery of the Council Plan and further develop our asset management approach in line with the Well-Managed Highway Infrastructure: A Code of Practice (The Code). This adopts a risk-based approach to highway infrastructure maintenance and has been used as the framework to provide the direction of travel for improvement in the service.

Our asset led approach intends to assist us to deliver a more efficient and effective approach to management of highway infrastructure assets through longer term planning and ensuring that levels of service are defined and achievable within available budgets. We put our customers at the heart of our strategy to ensure the highway infrastructure is maintained to provide the best service to the people of Cumberland.

Cumberland's Highway Assets

The highway network in Cumberland consists of a range of diverse assets. Table 1, below, sets out the key asset groups and their extent across the area as well as target service levels. Table 2 summarises the gross replacement cost of our asset portfolio.

Asset Type	Extent	Condition	Target Service Level	Asset Strategy
Carriageway	3,641km	Overall, the network is in average condition. The improvement on the Class A roads reflects the increased capital investment in recent years.	To sustain a steady state of condition with the highway asset, i.e. 1.7% of principal roads, 6.1% of non-principal roads and 32.7% of unclassified roads in need of maintenance.	• Target an increased investment in the asset to prevent a return to previous levels of deterioration. • Continue to explore new technologies and materials, including use of recycling. • Develop innovative techniques and greater use of technology to improve efficiency.
Footways & Cycleways	2,600km	Approx. 6% of the footway network is considered to require maintenance	To maintain a steady state with approx. 6% of the footway network in need of maintenance.	• Use condition data to develop lifecycle plans and forecast the appropriate intervention levels. • Develop innovative techniques and greater use of technology to improve efficiency.
Structures – Bridges, Culverts, Retaining Walls etc	1,447	Bridges and structures are routinely inspected and maintained to ensure a steady state condition. This is achieved through planned, cyclic maintenance and reactive works as necessary.	Maintain the existing Asset Condition scores. BSCI average rating 77.8%, BSCI critical element 67.2%.	• Maintain the safety of structures whilst making steady progress in addressing structures where strengthening is desirable on a risk basis.

Asset Type	Extent	Condition	Target Service Level	Asset Strategy
		Large numbers of retaining walls within Cumberland are still without condition data, or defined ownership, although a programme of retaining wall inspections has been initiated.		• Increase levels of funding to minimise the impact on the network resulting from climate change effects.
Drainage	71,298 Gullies	Approx. 3% of gullies are defective and require remedial works. The condition of other drainage assets in Cumberland, such as pipelines and manholes, is still being gathered and is to be completed.	To meet statutory duties and maintain a safe highway by continuing to assess and prioritise high risk flooding issues.	• Take a strategic and risk-based approach to determine where intervention is needed most. Continue with the long-term programmes of drainage works that will prevent major maintenance on other assets and provide a more resilient network for users.
Road Lighting and illuminated signs	27,712 Columns 2,257 Illumi-nated Signs	Our lighting stock comprises several material types, Aluminum, Cast Iron, Concrete, Fiberglass and Steel. 17.25% of this stock is categorised as aging stock which poses a risk to the authority. Without intervention, an additional 2% of the lighting stock becomes life expired each year.	Number of street light columns in excess of the action age <17%.	• Update asset data to produce consistent reports on stock levels, service performance and energy levels. • Continue with the column replacement, LED and dynamic lighting programmes. • Reviewing externally lit signs to reduce the number and declutter the asset stock.

Asset Type	Extent	Condition	Target Service Level	Asset Strategy
Traffic Manage-ment Systems (Traffic signals and signs)	62 Traffic Signal Controlled Junctions 71 Pedestrian Controlled Crossings	33% of our traffic signals sites are in need of replacement.	Number of Signal Controllers (Junction and Pedestrian crossings) exceeding action age: maximum 33%.	• Continue to build a better-quality level of infrastructure and increase remote monitoring and management.
Road Restraint Systems	15,828m steel posted, wooden posted and concrete barriers	Steel post road restraint systems are generally in good condition; however, many P1 terminals and some wooden post installations remain non-compliant and in poor condition.	Achieve and maintain compliance of road restraint systems across the Cumberland network.	• The prioritised programme identified through the independent survey will be implemented, subject to resource availability, to achieve compliance of road restraint systems across the Cumberland network and update inventory records to support future inspection and maintenance.
Public Rights of Way and Trees	• Cumberland is a rural county that attracts a large number of visitors for walking and hiking and has an extensive network of Public Rights of Way (PRoW) together with a significant stock of (highway) trees. This soft estate is managed to ensure safety and maintain access and serviceability for users while preserving, and where possible enhancing, biodiversity and habitats.			

Table 1: Cumberland's Main Highway Asset Groups

Asset Type	Indicative Gross Replacement Cost (GRC)
Carriageway *	£2,314,768,519
Footway & Cycleway *	£286,395,146
Linear Items *	£1,273,919,483
Structures (I)	£932,000,000
Lighting (I)	£55,000,000
Traffic Signals (I)	£7,000,000
Street Furniture (I)	£12,733,000
Total	**£4,881,816,148**
* Used available rates with inflation increase. (I) Indicative value.	

Table 2: Cumberland's Highway Assets – Gross replacement cost

Challenges and Opportunities

Managing the highways network effectively is crucial for the Council and there are a range of challenges and opportunities which need to be considered in deciding how best to maintain and manage the asset in the most effective way. These are set out below:

- Cumberland has an ageing network, which needs careful management of appropriate interventions to deliver overall improvement.
- There are high public expectations about the condition and quality of the highway network and improvements in highway maintenance.
- We are facing reduced levels of funding and have limited in-house resources.
- Climate change is resulting in more frequent adverse weather conditions.
- Roads in poor condition are more expensive to maintain than roads in good condition, as they require more reactive repairs, such as pothole filling, to keep them safe and when larger repairs are delivered, the treatments required are more extensive and therefore more costly.
- Cumberland faces a substantial backlog of highway asset repairs, as highlighted by the Annual Local Authority Road Maintenance (ALARM) survey.

The key factor in being able to maintain the highway infrastructure efficiently by carrying out planned maintenance rather than reactive maintenance, understanding the condition of each asset group. By understanding the condition, we can determine how it is functioning, how it is being used and deteriorating, and thereby plan the optimum maintenance intervention.

We have implemented a road hierarchy, based on use and local factors as opposed to a traditional road classification approach. This will inform where we need to direct resources including the Resilient Road Network.

Highway Asset Management Policy

The Highway Asset Management Policy statement supports the Council Plan, which sets out our commitment to improving the lives of the people of Cumberland. To achieve this will require us to adopt new ways of working:

Our Values

We believe passionately in the delivery of excellent public services. To do that we need to be clear about the values and behaviours that we need to drive change and achieve our high standards.

The Council Plan describes the council's vision and aspirations for the Cumberland and the overall approach we will take to deliver these aspirations. We cannot achieve our aspirations for the people and places of Cumberland on our own, so we are committed to working in partnership with other organisations and with communities to achieve the values we share. This is set around the framework of outcomes for the people of Cumberland, new ways of working and underlying core principles.

The Council Plan Vision is:

Cumberland Council takes a fresh approach to the delivery of inclusive services that are shaped by our residents and communities.

By enabling positive outcomes for health and wellbeing, prosperity and the environment we will fulfil the potential of our people and our area.

Maintaining the council's roads to the best possible standard within the available resources is a focus of activity for the council towards achieving our Council Plan outcomes. As a highway authority, Cumberland Council has a statutory duty to maintain, operate and improve the highway network on behalf of all its customers. We do this by providing services in a sustainable way; that meet statutory requirements without compromising the health and safety of our staff or customers.

Our vision for our highways service is to provide:

...a customer focused, resilient and cost-effective service that delivers a safe and well managed highways asset...

This will be achieved by supporting the key outcomes of the Council Plan:

- **People in Cumberland are healthy and safe:** The highway network contributes to ensuring people are healthy and safe by ensuring everyone can safely use the network. The network is used by a diverse range of transport modes to build, support and maintain people's health through walking, cycling, low carbon emission transport, public transport and personal transport.
- **Places in Cumberland are well-connected and thriving:** Being a predominantly rural the highway network provides the physical means to connect places in Cumberland, promote business and economic growth and support communities to thrive.
- **The economy in Cumberland is growing and benefits everyone:** The highway asset is key to supporting the economy in Cumberland to sustain and grow by providing and managing the key transport corridors that enable economic activity.

We have also embraced Well Managed Highway Infrastructure - A Code of Practice by reviewing our progress and embedding the 36 recommendations.

Our Strategy - the Framework for Asset Management

National guidance on Highways Infrastructure Asset Management sets out a framework which describes all asset management activities and processes that are necessary to develop, document, implement and continually improve asset management practices.

In support of this Strategy there is a suite of documents that are under review and outlined in Table 3 which includes the **Highway Infrastructure Asset Management Pla**n, this outlines how the planning and delivery of highway operations and maintenance support the objectives set out in Cumberland's Highway Asset Management Strategy. It also aligns the work of the Council's delivery partners, informs stakeholders of the processes for identifying and prioritising works, and highlights current constraints, challenges, and areas for future improvement.

Our Asset Management framework demonstrates how asset management links to our broad organisational context and strategic direction of travel, all the way through to frontline delivery of services.

The context for our asset management approach is the Council Plan's new ways of working. This includes:

- **Customer:** Putting our customers at the heart of everything we do. Our Customer Charter and Strategy will support our aim to engage and inform our customers providing appropriate and timely information. We will listen to our customers and make improvements to our service to achieve an improved customer experience of the service.
- **Working Together:** Working with partner organisations and communities to achieve shared aspirations. Our aim is to work with Community Panels, Parish and Town Councils, community groups and partner organisations to deliver outcomes for the benefit of Cumbria and its communities.
- **Enterprise and Efficiency:** Exploring new ways to deliver services and maximise our resources. Our aim is to explore innovative and commercial opportunities, to maximise our resources and reduce our service impact on the climate and environment.
- **Prevention and Early Intervention:** Acting early to achieve better outcomes. Our aim is to ensure we adopt early intervention and prevention.
- **Digital Transformation:** Giving our customers choice and easy access to online services. Our aim is to refresh our customer information and reporting systems by providing easy access online, by telephone and email to ensure our customers can inform us of problems in the network.

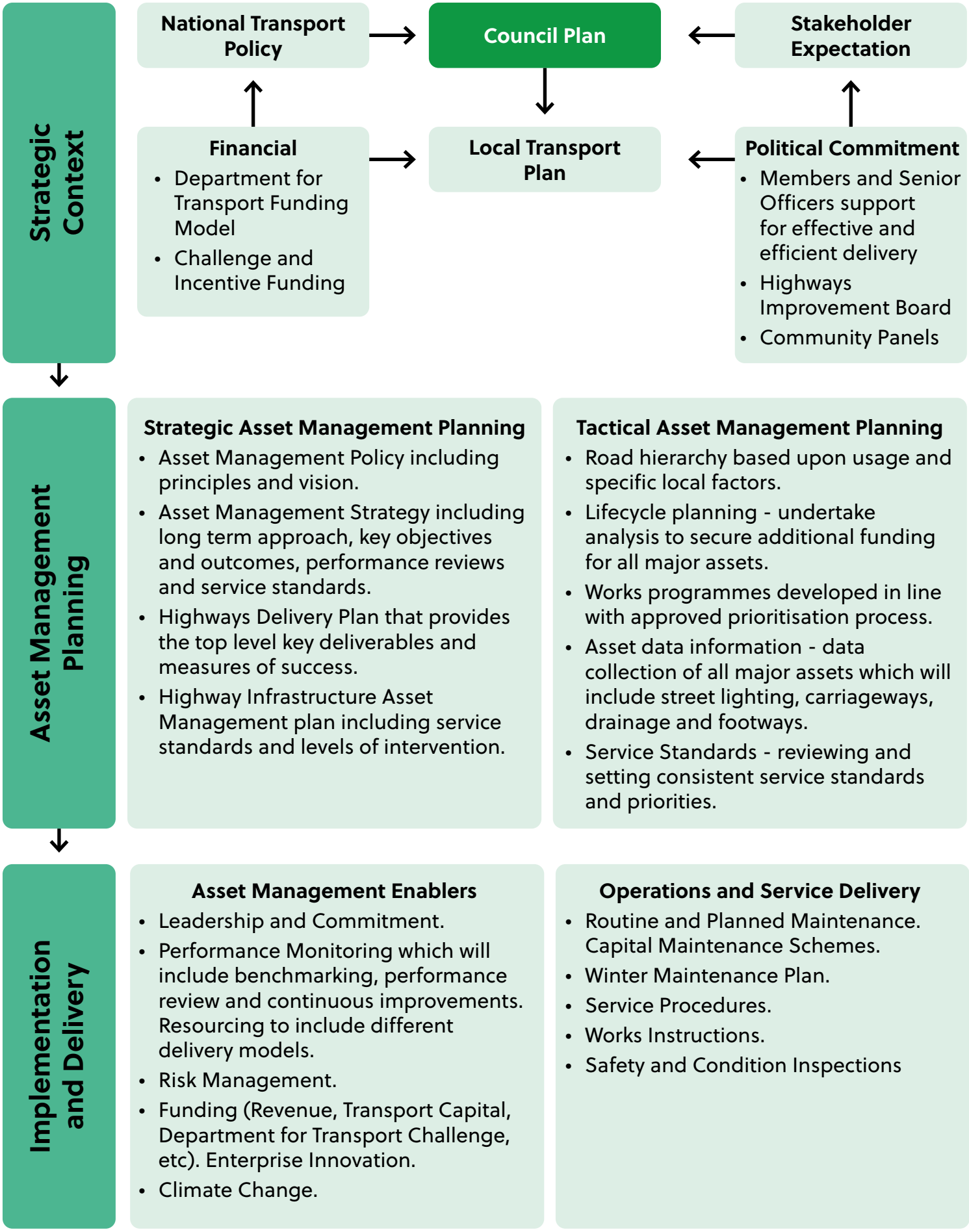

Table 3: Our Asset Management Framework

Our Asset Management Objectives

Our highways asset management objectives translate the council's values and strategic framework into clear, outcome-focused priorities for the management of the highway network. They provide a bridge between the high-level principles set out in the Asset Management Policy and the detailed actions described in the Highways Infrastructure Asset Management Plan.

The objectives reflect both national good practice and local priorities, ensuring that the service is safe, resilient, sustainable, and responsive to the needs of our communities. They will guide decision-making, investment planning, and day-to-day operations across all highway assets.

- **Safety:** Maintain a safe road network through effective management of works, timely monitoring, reporting and response to defects and hazards, and the delivery of a reliable winter service.
- **Asset Condition:** Sustain asset performance and serviceability through risk-based inspection, regular maintenance, and planned programmes of repair and renewal.
- **Whole-life Value:** Optimise the long-term performance of highway assets by applying lifecycle planning, prioritising preventative maintenance, and making targeted, cost-effective investment decisions.
- **Network Resilience and Reliability:** Embed climate resilience into asset management planning and delivery, coordinate works to minimise disruption and maintain the ability to respond effectively to incidents and emergencies.
- **Environmental Sustainability:** Reduce the environmental footprint of highway asset management activities and support sustainable travel choices through environmentally responsible practices.
- **Customer and Community Focus:** Deliver a service that is accessible, transparent, and responsive to the needs of customers and communities, ensuring that residents, businesses, and road users are engaged and informed.

These objectives set the direction for how the highway service will be managed. The detailed policies, programmes, and performance measures that give effect to these objectives are contained within the council's Highways Infrastructure Asset Management Plan. The plan translates the strategic objectives into specific activities, investment priorities, and monitoring arrangements, ensuring that delivery is consistent, measurable, and aligned with corporate and national requirements.

Appendix A provides a brief description of the condition of each of the main asset groups, with a statement of the desired outcome this strategy seeks to achieve, and the maintenance approach required to deliver each outcome.

Where we are now

Cumberland is at the forefront of national innovation, best practice and new ways of working. We work closely with Department for Transport (DfT); other government departments; Environment Agency and partners exploring and successfully securing funding and delivering infrastructure and flood recovery programmes of work. We also continue to strengthen collaboration with area teams to ensure effective programme development and delivery.

We have achieved the top band recognition for Highway Authorities through the Department for Transport's Incentive Fund process.

Resilience

The Highways Service has demonstrated strong leadership and crisis management through the delivery of major programmes of infrastructure repairs and improvements caused by extreme weather events over the last decade and a half. We have successfully managed these critical events and implemented infrastructure recovery plans using additional investment provided through close collaboration with Government Departments, and other partners. Our experience now places us at the leading edge nationally, in dealing with weather events and the subsequent recovery.

Following a number of adverse weather events we have taken the feedback from our workforce and partners to strengthen our knowledge and capability to improve the way we prepare and respond to future events.

We have developed and implemented a Resilient Road Network to help prioritise future investment decisions. As Lead Local Flood Authority, we have worked with partners, including Environment Agency, United Utilities and other groups such as Making Space for Water, to fully understand which of our communities are susceptible to flooding - and have been successful in securing additional funding to reduce flooding risk.

Data Sharing

Based on an assessment of the council's key themes, our current position is that we recognise that a key improvement area is the availability of data and the provision of timely information to our customers. We have already introduced new improved ways of providing this information through increased data on our web site, through greater use of social media and engagement with Members and local communities.

Collaboration and Partnering

We participate in the national annual National Highways and Transport (NHT) survey which provides us with statistical valid sample data from our communities on the status of the highways service and benchmarking ourselves against other authorities.

We continue to work closely with our Members through the community panels to understand community concerns and recognise the need to keep Members informed. This links with our Customer Charter which is aimed at easing engagement for the customer.

A "Working Together" initiative has been developed and implemented which provides a foundation for working with Parish and Town Councils, through a signed protocol, to support communities to carry out maintenance works that are important to them.

We have well established working arrangements in place with national and partner organisations to share best practice and inform decision making (e.g. Department for Transport, National Highways, Environment Agency, Utility Companies, Sustrans, Public Transport operators and Emergency Services).

Innovation

The council is working with its supply chain to implement new materials for highway maintenance. There have been early successes in dealing with tar bound materials and the council is an active participant in ADEPT's Live Labs programme to develop innovative approaches to carbon reduction.

We have implemented a new permitting scheme to manage and coordinate all highway and utility works on the highway network, which will help reduce delays caused by roadworks across the Cumberland area.

We are completing the implementation of a replacement programme for Road Lighting to LED fittings and have already realised significant energy savings.

We recognise the benefits of using social media to inform the public of planned works and especially during reactive events. Highways staff work closely with the Communications team to ensure meaningful information is available to the public.

We have reformed a number of our internal asset data collection and management systems that will contribute to further improvements.

This includes use of digital video surveys and analysis for the entire network, development of an adverse weather alert system for bridge monitoring during high rainfall periods and digital data capture, inventory and risk-based approach for gully cleansing and many other operations. We have introduced the use of online GIS platforms and data sharing, both internally and externally, and have introduced smart technology on our gritter fleet to create a direct link between the salt spreading to forecast data and our new digitised routes. For all these initiatives, we have worked collaboratively with partners and ensured our workforce are fully consulted, trained and equipped to adapt to these new ways of working.

Efficiency

We have undertaken a comprehensive review of our supply chain frameworks for both professional services and works with both cashable and non-cashable savings being achieved.

We have reviewed a significant number of our working processes and have identified improvements that will enable the public and Members, to access more information, as well as being able to report issues to us in a more user friendly, and efficient way.

We have carried out a review of our identification, assessment and treatment for highway safety inspections in accordance with The Code. The new risk-based approach is founded on asset use and not just classification of road.

We are now delivering a wider range of work in-house, including mini paving schemes using our own mini paver, road markings for parking and carriageways, and other activities that were previously outsourced. Some of these are being trialled as pilot schemes, such as weed killing, to expand our internal capabilities and improve efficiency.

Health, Safety and Wellbeing

We continue to embed a positive Health, Safety and Wellbeing approach with our workforce and contractors. Through our Health and Safety groups, we have strengthened practices such as the use of hard road closures, ensuring no vehicles are permitted in work areas. We continue to change and adapt our working practices in response to the changing security environment. In addition, we work closely with the Cumbria Road Safety Partnership, which includes Cumberland Council, Westmorland and Furness Council, National Highways, Cumbria Fire and Rescue Service, Cumbria Police, and other partners, to improve road safety for residents. The Partnership delivers a range of initiatives using enforcement, engineering, education, training, and publicity, and has adopted Vision Zero, aiming to eliminate fatalities and serious injuries on Cumbria's roads by 2040. We continue to adapt our working practices in response to the evolving security environment.

Where we are going

We want to ensure our customers are at the heart of our service and recognise the improvements we need to make to continue to enhance the customer experience; keep our customers better informed and ensure our Members are briefed in a timely manner. We will make it easier for the customer to access information online and by phone. This will enable us to deal with problems on the network within agreed levels of service. Our staff will be provided with the right resources, skills and capability to carry out their roles effectively in a digital organisation.

We value strong collaboration with partner organisations, communities, and groups such as the Local Council Innovation Group (LCRIG) to achieve shared aspirations. By making the most of the local knowledge of our Members and Community Panels, we can better consider the priorities and aspirations of our communities, ensuring that customers remain central to everything we do. We will work closely with Parish and Town Councils to further develop the "Working Together" project to support communities to undertake additional work on the highway within an agreed protocol.

We will work with partner organisations to keep Cumberland's strategic network moving and to deliver joint initiatives for implementing flood prevention measures. We will explore opportunities for shared services with other authorities in Cumberland.

We will continue to work closely with the Department for Transport and other national organisations on new approaches, innovations and industry leading initiatives.

Exploring new ways to deliver services is a core value of the Council Plan and the service recognises the need to continue to develop this.

This will include a focus on:

- Innovation.
- Enterprising and commercially aware approach including income generation.
- Climate and environmental change.
- Focussing on our internal resources through a review that clearly promotes asset management and integrated delivery.

We will adopt early intervention and prevention strategies to keep our communities healthy, safe and connected. This includes:

- Safety.
- Planning for Adverse Weather.

We have a statutory duty to maintain and keep our highway network safe all year. A risk-based approach has been embedded into our safety inspections to ensure defects are repaired in a timely manner, in line with agreed service standards and response times keeping the highway network safe for all users.

We will continue to promote a safe working culture for our workforce and contractors working on our network

We recognise the importance of planning for adverse weather events by reviewing and implementing the winter service. We will continue to use community intelligence and data to develop early intervention strategies to prevent and minimise the impact of flooding.

In meeting our digital objectives, the three Key Deliverable's we will focus on over the term of this Strategy are:

- Customer Access and Ease of Engagement for Customers Internal Systems.
- Staff Connectivity.

We will increase the number of online end-to-end application processes, ensuring our web site is up to date, accurate and user friendly. We will refresh our customer information and reporting systems by providing easy access online, by telephone through service centre, and email to ensure our customers can inform us of problems on the network and that we respond in a suitable and timely manner.

We will develop and improve key digital management systems such as inventory/ data capture and management, payment processing, reporting performance management, works management and customer management.

Our staff will be provided with the right equipment to carry out their roles working in a digital environment using smart technology and we will develop cultural changes to embrace new ways of working. We will ensure our staff also have the right skills and training to maximise the benefits of working in a digital organisation.

Maturing Our Asset Management Approach

Our approach to asset management is described in detail in the HIAMP, including how we will meet our Asset Management Objectives.

As part of our approach, Cumberland continues to adopt innovative and evidence-led practices. We were one of only three authorities that contributed to the development of PAS 2161, helping to shape national guidance on highway asset management. We are also constantly working with the Vaisala road AI system, using advanced technology to collect and analyse data on network condition, safety inspections, and road markings. These initiatives support proactive decision-making, enable more efficient use of resources, and help us plan interventions with a long-term, sustainable view of the highway network.

By adopting an asset management led approach to highway maintenance, based on best practice, we will continue to maximise the investment available to improve the condition and longevity of the asset.

- We will improve the information we provide to our customers in a more user-friendly format, and we will seek feedback through satisfaction surveys on the improvements we implement, along with regular dashboard reporting on the overall performance of the service.
- We will ensure that any information on programmed works being carried out is shared with local Members and the public in a more timely manner.
- We will work with Parish and Town Councils and community groups to deliver "Working Together" agreements on projects.
- We will explore opportunities to collaborate with other agencies and partners to share best practice and influence national decision-making.
- We will develop and implement innovative ways of working to deliver an enterprising and commercially aware approach.
- We will always consider new opportunities to procure, manage and deliver highway services; review our processes and be receptive to challenge on how efficient we are.
- We will secure additional funding and reduce the impact of climate.
- We will further embed our risk-based approach to managing our assets ensuring that the most appropriate early intervention is carried out in a timely and efficient manner.
- We will implement new systems to ensure defects are repaired to agreed service standards and response times.
- We will implement new innovative systems to improve our digital offer to customers ensuring our web site, social media content and other digital formats are fit for purpose.
- Staff will be upskilled to use the new innovative systems to the best effect and act as digital champions for our service, helping customers improve their digital skills so they can benefit from our improved offer.

Climate Change

We are all well aware of the effects of climate change on our environment and we will ensure that all mitigation measures are considered when dealing with the direct and indirect impact of highway maintenance on the environment and our communities.

This includes consideration of whole life carbon costs; appraisal of materials, products and treatments for maintenance for environmental impact, nature conservation and biodiversity; and risk assessment and mitigations for the effects of extreme weather on highway infrastructure assets (Climate Change Adaptation).

We are working closely with government partners to improve carbon reporting, adopting innovative techniques and sustainable materials, and participating in local innovation groups to share ideas and collaborate on research. Through these actions, we aim to reduce the environmental impact of our operations, enhance biodiversity, and build a resilient, sustainable, and nature-positive highway network that supports Cumberland's wider Climate and Nature Strategy. We take into account the following issues when considering our approach to highway maintenance:

- Carbon costs and energy reduction.
- Noise.
- Materials utilisation.
- Waste management and recycling.
- Air quality and pollution control.
- Nature conservation and biodiversity.
- Environmental intrusion.

Highway maintenance sustainability links to the wider environment and sustainability principles and outcomes of Cumberland Council, our stakeholders and partner contractors.

Our key focus for responding to climate change includes the following:

- Using intelligence and data to improve our ability in planning for and responding to seasonal and adverse weather events Working with partners to improve air quality and reduce carbon footprint.
- Explore opportunities for Electric Vehicle charging points.
- Increase usage of environmentally friendly and recycled materials.

Data Management

We undertake a risk-based approach to asset management utilising the extensive knowledge of the various elements of the highway.

We retain that knowledge through our maintenance of validated inventories which are available to users throughout the full decision-making cycle.

The council collects data across the full spectrum of highway assets, including:

- Carriageways.
- Footways.
- Structures.
- Lighting columns and associated electrical apparatus.
- Road gullies, associated pipework and chambers.
- Trees, vegetation and associated green space (ecological concerns).
- Safety barriers and fences.

This data is collected and recorded in centrally managed databases that provide an accessible, and singular, version of the assets condition and other information.

Through this asset management approach, we will continue to maximise the investment available to improve the condition and longevity of the asset.

We will continue to review the data recorded as well as the frequency and the manner in which it is recorded.

Lifecycle Planning

Life cycle planning comprises the approach to the maintenance of an asset from construction to disposal. It is the prediction of future performance of an asset or a group of assets based upon investment scenarios, usage and maintenance strategies. Typically, there are five stages to the life of an asset:

- **Creation/acquisition** - a new asset as a result of a new development or Capital Project.
- **Routine maintenance** - cyclic and reactive maintenance designed to maintain the asset in a serviceable condition.
- **Renewal/replacement** - major work required when cyclic maintenance / reactive works are unable to sustain the asset to the required standard.
- **Upgrading** - improvement to an asset to meet increased demands.
- **Disposal** - decommissioning of an asset when past its economic life.

The ability to make the right decision at the right time is the key to effective lifecycle planning. Using the data available will ensure that the asset will provide the expected level of service over its expected life span at the most efficient cost. To support that, we will:

- Increase our knowledge of the asset through continual survey work.
- Cyclic maintenance to repair minor faults.
- Develop a medium/long term programme for major work to sustain the asset for its full life span.

The current approach adopts preventative maintenance actions to sustain asset condition at a steady state, with enhancement works undertaken subject to budget availability.

Best Practice and Performance Monitoring

We will continue to adopt a performance management framework, which will be measured and reported regularly internally and published on our website.

Cumberland Council is committed to the development of good practice, innovation and continuous improvement having already played a key role in the development of a number of initiatives at both a regional and national level.

We are committed to sharing knowledge and experience in implementing asset management with other Highway Authorities across the country and are active members of the following:

- Local Council Innovation Group (LCRIG).
- Direct Management Group (DMG) Benchmarking Club.
- Network Highways and Transport (NHT) Survey.
- Customer, Quality and Cost (CQC) Efficiency Network.
- Chartered Institute of Public Finance (CIPF) and Accountancy Highways Asset
- Management Planning (HAMP) Network.
- Association of Directors of Environment, Economy Planning and Transport (ADEPT).
- Asset Management Board.
- UK Roads Liaison Board.
- National Traffic Managers Forum.
- Highways Authorities and Utilities Committee (HAUC).

Delivering the Strategy and Measuring Success

This document is supported by a refreshed Highways Infrastructure Asset Management Plan (HIAMP) including policies and guidance, service standards and levels of intervention in respect to the council's legal requirements and its service provision.

To ensure we are getting it right, we will ask our customers for feedback. We will shortly be engaging with local communities and visitors through a Highways and Transport Feedback Survey, and we continue to engage with National Highways and Transport surveys to monitor and improve customer experience. This is important to us and enables us to compare our improvements to other similar authorities.

We also undertake customer satisfaction surveys and seek feedback on all aspects of highways asset management and delivery.

We will continue to review our progress against this plan using a clearly defined set of performance management measures and targets to ensure we continue to deliver best practice and improve our performance. We will use our assessments of our progress to consider where changes are required, and to ensure that we continue to improve as a high performing highway maintenance service provider.

Appendix A: Asset Group Strategies

The following sections provide a brief description of the condition of each of the main asset groups, with a statement of the desired outcome this strategy seeks to achieve, and the maintenance approach required to deliver each outcome.

Carriageways

The length of adopted carriageway within Cumberland shown on Table 4 below, breaks down the carriageway sections into classified, unclassified and pedestrian only routes. These lengths do not include the M6 and Trunk Roads in the that are managed by National Highways.
The council manages and maintains the majority of the highway network, from major roads through to minor rural roads. The Carlisle Northern Development Route (CNDR), managed under a Private Finance Initiative (PFI) agreement, further increases the importance and overall length of the network maintained within Cumberland.

Road Classification CC Length	Road Classification CC Length (km)	Connect Roads (km)	National Highways Road Link (km)
Motorways			60
'A' Roads	174	158	104
'B' Roads	302	0.4	
'C' Roads	1,032		
Unclassified Roads	1,876	1.3	
Unsurfaced	94		
Total	**3,481**	**160**	**164**
Combined CC + Connect Roads	**3,641**		

Table 4: Carriageway (Highway Network) Lengths

Current Challenges

Carriageways are the most valuable highways asset in Cumberland and receive the greatest levels of maintenance expenditure. They were the first asset for which lifecycle plans were developed using current condition data to optimise investment. This has enabled a greater understanding of where to target investment to achieve the desired levels of service.

The council has already implemented use of new surfacing products that aim to recycle materials to form durable construction materials. Lifecycle planning activities in terms of whole life carbon costs to be considered when determining interventions, materials and treatments.

The Council is also now delivering in-house mini paving schemes using its own mini paver and undertaking more work internally that was previously outsourced.

Strategic Framework

The council's refreshed asset management approach will be to target increased investment in the asset in order to prevent a return to previous levels of deterioration. We will continue to explore new technologies and materials, particularly the use of recycled materials (existing surfacing materials and remanufactured/enhanced surfacing products). We will also explore the inclusion of infrastructure that supports more environmentally sustainable transport while delivering maintenance schemes (e.g. electric charging points). To develop innovative techniques and greater use of technology to improve efficiency.

Quick Wins

To sustain a steady state of condition with the highway asset and identify where improvements are necessary:

- 32.7% of unclassified roads requiring maintenance.
- 6.1% for non-principal roads.
- 1.7% for principal roads.

Within Strategy Timeframe

- The overall condition of the carriageway asset is improved in line with minimum whole life costs supported by appropriate levels of investment.
- The carbon footprint of the maintenance activities is reduced year on year and there is a move towards supporting environmentally sustainable transport modes.

The Council has implemented new surfacing products that recycle materials to form durable construction materials and is exploring replacement materials to further reduce carbon emissions. Lifecycle planning considers whole-life carbon costs when determining interventions, materials, and treatments. We also collect AI-based inspection data across the network, including condition, safety inspections, and road markings, to inform our asset management decisions.

The information shown below are taken from our condition survey data and the percentages indicate those carriageways extents deemed red and in need of maintenance.

Performance Indicator	23/24	24/25
% Principal Roads requiring maintenance (lower is better)	2.0%	1.7%
% Non-Principal Roads requiring maintenance (lower is better)	7.5%	6.1%
% Unclassified Roads requiring maintenance (lower is better)	24.5%	32.7%

Table 5: Performance Indicator - Condition Survey Data

Footways and Cycleways

Footways and cycleways provide safe and convenient access for a range of essential journeys to access work, shops, schools and leisure activities. While many of them will be found in the urban areas, footways are also critical in rural areas in providing safe access to key services and linking villages. Footways and cycleways are key assets in the sustainable transport agenda and enabling people to choose modes of transport that have positive health impact and minimal carbon impact.

Current Challenges

Detailed condition surveys of the highway footways and cycleways have recently been undertaken, and the condition of our footways and cycleways is now fully understood.

A review of the condition data is underway to develop lifecycle plans for these assets along with a targeted approach to improve the condition of the asset using a risk-based approach.

Strategic Framework

To interpret the condition data to effectively develop lifecycle plans and forecast the appropriate intervention levels for each footway and cycleway. To develop innovative techniques and greater use of technology to improve efficiency.

Quick Wins

- To maintain a steady condition state.
- To introduce digital inspection methods to speed up walked inspections.

Within Strategy Timeframe

- To improve the overall condition of footways and where necessary adopt a preventative approach to surface treatments.
- Increased usage of the asset to support health and wellbeing of communities and increased levels of walking and cycling across the county to support the visitor economy and reduced carbon footprint. Increase the length of available off-carriageway routes.

The information shown below are taken from our condition survey data and the percentages indicate those footway extents deemed red and in need of maintenance.

Performance Indicator	23/24	24/25
% total footway requiring Maintenance (lower is better)	7.1%	6.0%

Table 6: Performance Indicator footway requiring maintenance

Bridges and Structures

The council is responsible for 1447 bridges and other structures consisting of 830 bridges, 352 large culverts, 98 retaining walls, 6 sea defence walls, and 161 cattle grids. These are vital to maintaining accessibility, helping to connect communities and support the economy, which became very apparent both during and after the serious flooding events experienced across Cumberland, in recent years.

Current Challenges

Maintaining these structures is a significant challenge especially with the threat of ever-increasing river levels as a result of climate change. However, through a comprehensive programme of bridge inspections, including underwater surveys, a prioritised maintenance regime aims to mitigate the risk associated with such events. By carrying out maintenance works in a timely manner before defects become significant, budgets can be used more effectively to provide greater longevity. Detailed asset datasets exist for the all structures - the exception being retaining walls.

Strategic Framework

We need to maintain the safety of structures whilst making steady progress in addressing structures where strengthening is desirable, utilising bridge condition, scour risk and route priority as determinant factors. Following Storm Desmond in 2015 a significant number of bridges were rebuilt, strengthened, repaired or protected to make them better able to withstand such extreme weather events. This theme will be continued with increased levels of funding to minimise the impact on the operational highway network, particularly as climate change effects become more prevalent.

Quick Wins

- Introduce a standard reporting format for Structural Reviews.
- Baseline the critical and average condition scores of all bridges for future years comparison.

Within Strategy Timeframe

- To meet statutory duties and maintain a safe arid resilient network by continuing to assess and prioritise high risk issues affecting bridges and structures such as structural defects, deterioration and capacity concerns, and programme interventions accordingly.
- Review, validate, and maintain the accuracy of asset data for all structures across the network to support effective management, compliance, and decision-making.

The performance indicators below are Bridge Stock Condition Indicators (BSCI), which are numerical scores used to summarise the condition of structural elements, spans, and whole structures. These indicators help prioritise maintenance, support consistent comparison across structures, and inform reporting on overall network condition.

Bridge Condition Indicators are typically interpreted as follows:

BSCI Score	Condition Category
90-100	Good
80-89	Fair
65-79	Poor
0-64	Very Poor

Table 7: Bridge Stock Condition Score

Performance Indicator	23/24	24/25
BSCI average rating (Higher is better)	79.1%	77.8%
BSCI critical element (Higher is better)	67.7%	67.2%

Table 8: Performance Indicators Bridge Stock

Based on the ranges above, the current condition of Cumberland Council's bridge stock is classified overall as Poor.

Drainage

Cumberland Council is the Lead Flood Authority with responsibilities for managing flooding from local sources, namely ordinary watercourses, surface water (overland runoff) and groundwater in the area.

Partnership working between the council, Risk Management Authorities, other relevant organisations and local communities is key to managing flood risk in the future, funding future flood schemes and helping communities to become more resilient to flooding.

Current Challenges

Whilst asset data exists for most highway gullies, information on the associated outfall systems of various types is still not fully understood. This creates significant risk in understanding where drainage discharges from the highway. The collection of this data is very expensive, and Cumberland has therefore adopted a risk-based approach and is gathering it by introducing new asset management software that enables collection of this data while carrying out maintenance activities.

Strategic Framework

A strategic and risk-based approach will be adopted to determine where intervention is needed most. We will continue with the long-term programmes that invest in drainage works, which will prevent major maintenance on other assets and provide a more resilient network for users. The current gully cleansing operating model is under review with the aim of using technology to improve flexibility, quality and responsiveness to local need ensuring maintenance work is appropriate and risk based rather than a "one size fits all".

Quick Wins

- More closely integrate the separate drainage inventory into the asset management system to support the risk-based maintenance approach.

Within Strategy Timeframe

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

Road Lighting

Cumberland Council currently maintains 27,051 road lighting columns, as well as over 2,200 other electrical units. A significant number of the columns need replacement to reduce risk. There is an ongoing programme to deliver column replacement and extend levels of low energy lighting.

Our current lighting asset is set out below:

Asset Type	Quantity
Lighting Columns	27,712
Illuminated Signs	2,257
Illuminated Bollards	194
Feeder Pillars	303
Subway Lighting Units	105
Illuminated Handrail Units	58

Table 9: Lighting Assets

The Council has previously embarked on a three-year capital programme to deliver significant improvements to the lighting asset by replacing high wattage main road lanterns. We have invested from the capital programme to replace life expired columns. Of the lanterns replaced more are now dynamic lighting units that dim the lighting levels according to use.

This has reduced energy costs and carbon emissions, saving more than £1m per year. In the future all new lanterns will be LED and dynamically switched.

Current Challenges

Our challenges are the need to reduce energy costs, provide effective lighting systems and maintaining these systems in the most cost-effective way.

Further improve the quality of our asset data to enable consistent reporting of stock levels, service performance and energy usage

Strategic Framework

We are currently completing a comprehensive update of the lighting asset on our asset management system to produce consistent statistical reports for stock levels and service performance; and to record energy levels. We will also continue with the column replacement, LED and dynamic lighting programmes. We are currently reviewing externally lit signs to reduce the number of separately lit units and declutter the asset stock.

Quick Wins

- Develop and seek approval for a comprehensive column replacement programme.

Within Strategy Timeframe

- To adopt the well managed highway infrastructure code of practice covering road lighting.
- To move from a reactive maintenance regime to a planned, sustainable asset management based approach.
- To continue to improve the lighting asset, resulting in reduced operating costs and carbon emissions.
- To further explore new and innovative technologies that may reduce maintenance liabilities; make better use of the asset to support the emerging digital agenda or provide vital services for communities.
- Support the Council's asset management aims of safety, innovation and sustainability.

The table shown below is a performance indicator based on age of this asset and show kilowatt hours and carbon.

Performance Indicator	23/24	24/25
Number of street light columns in excess of the action age (lower is better)	15%	17%
Kilowatt hours	3,484,387	3,367,451
Carbon used (Tonnes)	681 (609)	646 (579)

Table 10: Performance Indicators Road Lighting

Traffic Management Systems

Traffic signal junctions are vital to manage traffic on the urban roads and many of our town centres have an Urban Traffic Control System to coordinate the junctions. In addition, the signalled pedestrian crossings provide safe crossing points for vulnerable road users to both improve safety but also maintain their independence.

Current Challenges

Underinvestment in the existing infrastructure in the past has left a number of sites needing refurbishment. Capital investment in recent years has helped to control this aspect and continued investment to bring sites up to date is still required. A small team and a large area can result in issues providing resilience to the management of the signals throughout Cumberland.

Strategic Framework

To continue to build a better-quality level of infrastructure for the and improve communications to the sites allowing remote monitoring and management to take place. Review staffing levels and roles to improve resilience and to enable the progression of improvement works.

Quick Wins

- Refine the lifecycle model demonstrating funding requirement for various performance outcomes.

Within Strategy Timeframe

- Continue to improve the infrastructure asset quality.
- Increase the number of sites that are monitored remotely.
- Assess critical issues likely to impact the systems in order to reduce the reactive response.

The table shown below is a performance indicator based on age of this asset:

Performance Indicator	23/24	24/25
Number of Signal Controllers (Junction and Pedestrian crossings) in excess of action age (Lower is better)	39%	33%

Table 11: Performance Indicators Signal Controllers

Road restraint systems

Steel post road restraint systems on the Cumberland network are generally in good condition, though there is a significant proportion of P1 terminals which are not compliant for higher speed roads and current containment standards. There are still installations with wooden posts that are non-compliant and often in disrepair.

Current Challenges

The principal challenge is resource capacity for the required upgrades current RRS installations. While key sites for intervention have been identified, overall data on RRS stock (i.e. lengths, type) and condition needs systematic collation for ease of access, analysis and reporting.

Strategic Framework

Cumberland recognises the importance of its RRS asset to ensure the safety of the network and has recently (2025) commissioned an independent survey and assessment to prioritise sites for improvement.

Quick Wins

Work will be commissioned to replace/upgrade RRS at sites identified by the independent survey in order of risk priority.

Within Strategy Timeframe

The programme identified through the independent survey will be followed, subject to resource availability, to ensure compliant RRS across the Cumberland network. These works also provide the opportunity to update inventory records to inform future inspection and maintenance requirements.