

HIGHWAY INFRASTRUCTURE ASSET MANAGEMENT STRATEGY 2026

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Foreword

Since the introduction of Nottinghamshire's Highway Infrastructure Asset Management Strategy in 2022, we have made significant progress in embedding asset management as a coordinated, organisation-wide capability across our highways service. In line with the Institute of Asset Management's (IAM) 10 Capabilities Model, this has included strengthening leadership and governance, improving organisational alignment and culture, and enhancing the way we use data, risk, and decision-making to support delivery. These improvements have enabled us to deliver major programmes that reinforce our commitment to a safe, serviceable, and resilient network.

Over the past four years, we have accelerated the conversion of street lighting to LED, reducing energy consumption and carbon emissions, while introducing a risk-based approach to column replacement. We have expanded our use of condition data, digital tools, and predictive analytics to strengthen our information management capability and better inform lifecycle planning and decision-making. In parallel, we have trialled innovative materials and techniques to reduce whole-life costs and environmental impact, demonstrating a more mature, value-led approach to decision-making and lifecycle delivery.

These achievements have also been underpinned by stronger engagement with communities and stakeholders, ensuring that purpose and context are reflected in how the network is managed and maintained. This has enabled us to better align investment decisions with local priorities and customer outcomes, reinforcing the link between asset management activity and the value delivered to residents and businesses.

This Strategy sets out how Nottinghamshire will build on these foundations, responding to a changing strategic context including regional collaboration through the East Midlands Combined County Authority (EMCCA) and Local Government Reorganisation (LGR). It continues to prioritise prevention, resilience, and carbon-aware decision-making, ensuring the highway network remains safe, reliable, and sustainable for current and future generations.

Delivering Nottinghamshire's Highway Improvement Priorities

In response to the continued pressures on the highway network, including deterioration, increased demand, and constrained funding, Nottinghamshire County Council, working in partnership with our Teckal company, Via East Midlands Ltd (ViaEM), has adopted a clear and focused set of delivery priorities. These priorities build on the Council's asset management approach and provide a practical framework for improving network condition, resilience, and customer outcomes.

Together, they set out how we will reverse the decline in highway condition through targeted, evidence-led intervention and efficient service delivery.

Our Six Priority Commitments

1. Prioritising Preventative Maintenance

We will continue to adopt a prevention-first approach, intervening at the right time to slow deterioration and extend asset life. By increasing the use of planned, risk-based treatments, we will reduce the need for reactive repairs, minimise disruption, and deliver better long-term value.

2. Permanent First-Time Repairs

Repairs will be delivered, wherever feasible, as permanent first-time interventions. This approach avoids repeat visits, reduces disruption, and ensures that defects are resolved with durable, long-lasting solutions that improve whole-life performance.

3. No Quick Fixes – Investing in Durable Solutions

We will move away from short-term or temporary fixes and instead invest in stronger materials and more resilient repair techniques. By focusing on quality and durability, we will improve the reliability of the network and reduce the frequency of future interventions.

4. Efficient and Value-Driven Service Delivery

We will maximise the value of every pound invested by working closely with ViaEM and our supply chain to deliver coordinated, efficient programmes. This includes optimising whole-life costs, improving productivity, and ensuring that investment decisions are evidence-led and outcome-focused.

5. Winter Preparedness and Mitigation

Recognising the impact of winter weather on network condition, we will strengthen our approach to resilience and seasonal preparedness. This includes proactive planning, effective winter service delivery, and targeted post-winter recovery programmes to address damage quickly and efficiently.

6. Securing Sustainable Funding for Highways

We will continue to make the case for sustained and increased investment in local highways, working with regional and national partners to secure funding that reflects the scale and importance of Nottinghamshire's network. This includes supporting wider advocacy for long-term, stable funding settlements.

Embedding these Priorities

These six commitments are fully aligned with Nottinghamshire's asset management framework and are delivered through:

- A prevention-led, lifecycle approach to investment
- Risk-based decision-making supported by robust data and analysis
- A focus on whole-life value, not short-term condition fixes
- Strong partnership working with ViaEM and the supply chain
- Integration with our resilience, sustainability, and customer strategies

By embedding these principles within our HIAM Strategy, we ensure that our approach is not only technically robust, but also clearly focused on delivering visible improvements for residents, communities, and businesses.

1. Introduction

Nottinghamshire's highway network is the County Council's largest and most valuable public asset. It plays a critical role in supporting economic activity, enabling access to services, and connecting communities across the county. The scale and complexity of the network is significant, comprising over 4,428 km of carriageway, extensive supporting infrastructure, and a diverse range of associated assets, with an estimated gross replacement cost of over £10 billion (excluding land).

This Highway Infrastructure Asset Management Strategy (HIAM Strategy) sets out how the Council will manage this asset in a structured, consistent, and evidence-led way. It establishes a clear approach to planning, maintaining, and renewing the network, ensuring that investment decisions balance performance, cost, and risk while delivering outcomes that matter to residents and businesses.

The HIAM Strategy aligns with the Council Plan 2025–2029 priorities: Stronger Families, Caring Connections; Rooted in Communities, Thriving Together; and A Connected County, Creating Opportunity, and supports national policy, including the Department for Transport's Better Connected: A Strategy for Integrated Transport (2026). In doing so, it contributes to the delivery of safe, reliable, accessible, and integrated transport systems.

Our approach is consistent with ISO 55000 principles, providing a structured framework for managing assets throughout their lifecycle. It also reflects the Institute of Asset Management's (IAM) 10 Capabilities Model, ensuring that asset management is delivered as an integrated system across leadership, planning, decision-making, delivery, and continuous improvement.

Central to this approach is a prevention-led philosophy, where timely intervention and whole-life planning are used to reduce long-term costs, improve performance, and enhance resilience. This is supported by a strong commitment to sustainability, inclusive design, and engagement with communities.

This strategy is further supported by a clear set of delivery priorities, set out in the Council's Highway Improvement priorities, which translate asset management principles into targeted actions to improve network condition, resilience, and value for money.

Figure 1 below illustrates how our asset management approach maintains a clear line of sight between organisational purpose, decision-making, and delivery outcomes:

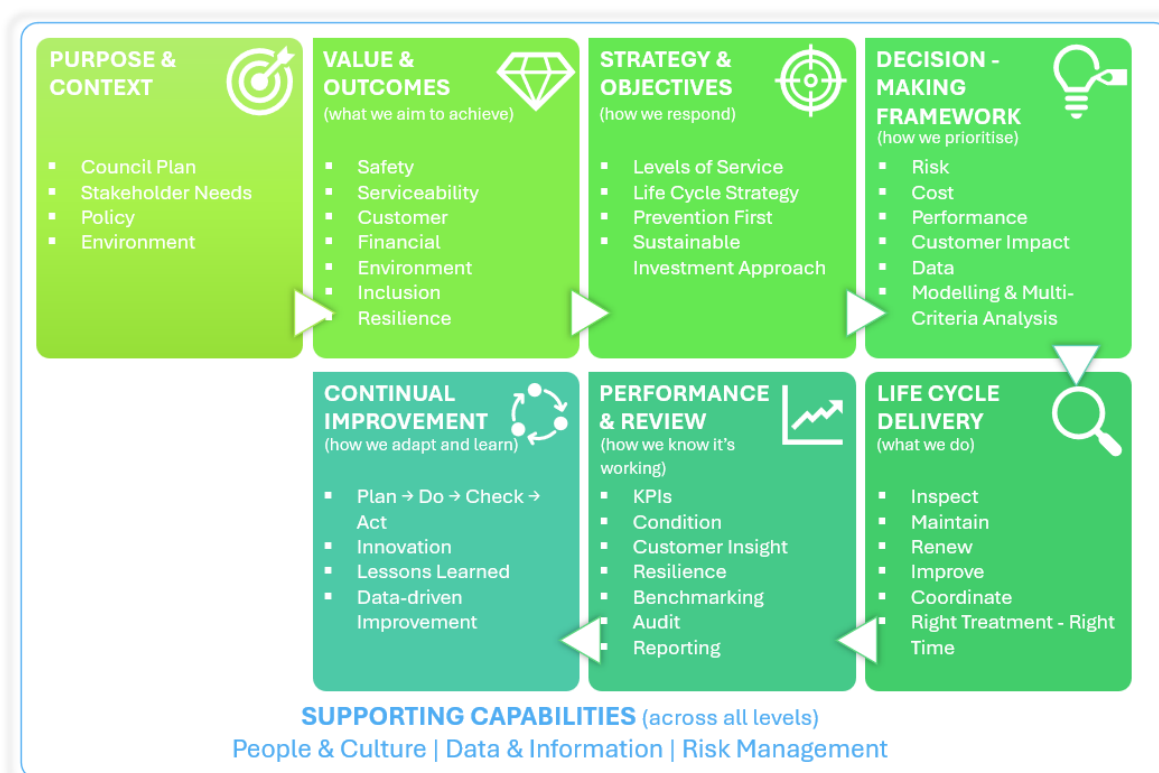


Figure 1: Asset Management Line of Sight and Delivery Framework

Delivery will be guided by recognised sector best practice, including Well-Managed Highway Infrastructure: A Code of Practice, ensuring a risk-based approach that maintains a safe and reliable network, with levels of service proportionate to need and available resources.

2. Purpose & Context

To establish how this approach is applied in practice, it is important to first understand the context in which the network operates and the needs it must fulfil.

Organisational Context

Our highway network is a key enabler of Nottinghamshire's wider economic, social, and environmental ambitions. It supports access to employment, education, healthcare, and services, and plays an important role in shaping the places where people live and work.

Asset management is therefore focused on delivering outcomes that matter to communities, including safety, accessibility, resilience, environmental performance and the efficient use of public resources, with achievement measured through defined levels of service, performance indicators and customer insight.

The way in which the network is managed is influenced by a range of internal and external factors. These include national policy and funding frameworks, regional collaboration through EMCCA, and the implications of Local Government Reorganisation. Longer-term pressures such as climate change, increasing demand, demographic change, and financial constraints also shape how we plan and prioritise investment.

Regional collaboration through EMCCA presents opportunities to strengthen strategic transport planning, secure additional investment, share best practice, and develop consistent approaches to asset management across the region. The Council will work proactively with

EMCCA, neighbouring highway authorities and regional partners to maximise opportunities for collaboration and support the delivery of wider regional transport and economic objectives

Asset management provides the framework through which these challenges are understood and addressed, ensuring that decisions are informed, balanced, and aligned to organisational objectives.

Stakeholder Requirements

Understanding stakeholder needs is central to effective asset management. The Council engages with a wide range of stakeholders, including Members, residents, businesses, developers, and regional partners, to ensure that the network meets the needs of those who rely on it.

This engagement enables the Council to balance competing priorities, respond to local concerns, and make transparent decisions about how resources are allocated. Stakeholder insight directly informs levels of service, asset management objectives, and investment planning, ensuring that the network is managed in a way that reflects local needs and expectations.

This ensures a clear link between what matters to Nottinghamshire and how the highway network is managed.

3. Strategic Objectives

Building on this understanding of context and stakeholder needs, we have established a clear set of strategic objectives to guide the management and improvement of the highway network. These objectives are aligned with the Council Plan and national transport priorities and provide a consistent framework for our asset management approach.

- Deliver safe, reliable and accessible journeys for all users, supporting seamless movement across the network.
 - Maintain highway assets in a serviceable and resilient condition through a prevention-first, lifecycle approach.
 - Strengthen the resilience and adaptability of the highway network to support continued service delivery in the face of climate, operational and demand-related challenges.
 - Optimise whole-life cost and performance, ensuring best value for public investment.
 - Support sustainable growth and environmental outcomes, including carbon reduction, climate resilience and biodiversity.
 - Improve customer experience and satisfaction by aligning service delivery with user needs and expectations.
 - Enable inclusive and integrated transport, ensuring the network supports all users and contributes to wider economic and social outcomes.
 - Continually improve asset management maturity, capability and organisational learning to support evidence-led decision-making and service excellence to maximise the benefits realised from investment in highway infrastructure.
-

These objectives establish the outcomes we aim to achieve and provide a clear framework for asset management decision-making, performance monitoring, and investment planning across the highway network.

They also reflect the importance of supporting environmental sustainability, improving customer experience, and enabling inclusive and integrated transport networks.

Together, these objectives are reinforced by the Council's defined Highway Improvement priorities, ensuring that strategic intent is translated into clear, deliverable actions across the network.

4. Value & Outcomes Framework

The strategic objectives are underpinned by a clear definition of value, ensuring that investment decisions are focused on delivering meaningful outcomes. In this context, asset management in Nottinghamshire is not simply about maintaining assets in a particular condition but about achieving outcomes that matter to our residents and communities. This requires a shared understanding of what "value" means in practice, which for Nottinghamshire is defined across the following outcome areas:

Value	Outcome Focus
Safety	Reduction in risk to all users
Serviceability	Reliable and accessible network
Customer	Satisfaction and user experience
Financial	Whole-life cost efficiency
Environmental	Carbon reduction and resilience
Social	Inclusive access and community benefit

Table 1: Asset Management Value Framework and Outcomes

By considering value in this way, the Council is able to take a balanced approach to decision-making, recognising that different outcomes may need to be prioritised depending on the context.

Asset management investment is ultimately focused on delivering outcomes rather than simply maintaining assets in a particular condition, the Council is investing to deliver safer, more reliable, resilient and sustainable outcomes for Nottinghamshire. While asset condition remains an important indicator of performance, investment decisions are increasingly evaluated based on the benefits they deliver, including improved safety, network reliability, customer experience, resilience, accessibility, environmental performance and whole-life value. This ensures that investment is aligned to the outcomes that matter most to residents, businesses and communities.

This framework ensures that investment decisions are aligned to real-world outcomes and that trade-offs between competing priorities are made in a transparent and consistent way. It also provides the basis for performance monitoring, enabling the Council to assess how effectively it is delivering against its objectives.

5. Asset Management Culture, Leadership and Governance

Leadership Commitment

Nottinghamshire County Council's senior leadership team and elected Members are committed to the effective management of highway infrastructure assets as a strategic enabler of the Council's wider objectives. Leadership will provide appropriate resources, direction and oversight to support the delivery of this Strategy and the achievement of asset management objectives. Asset management principles will be embedded within corporate planning, financial planning, investment decision-making and service delivery.

Leadership will actively promote the adoption of best-practice asset management across the organisation, supporting a culture of collaboration, innovation, accountability and continuous improvement. Performance, risks, investment outcomes and the effectiveness of the asset management system will be reviewed regularly to ensure that highway infrastructure continues to deliver value to residents, businesses and communities throughout Nottinghamshire.

The Council is committed to maintaining accurate, reliable and accessible asset information that supports evidence-led decision-making. Appropriate information governance arrangements, data quality standards, assurance processes and digital systems will be maintained to ensure that asset data remains fit for purpose throughout the asset lifecycle.

The Council also recognises that people are fundamental to successful asset management. We will continue to invest in the development of professional competence, technical expertise and leadership capability across Nottinghamshire County Council, Via East Midlands, and our wider delivery partners. This will support the continued development of a positive asset management culture and the effective delivery of this Strategy.

Asset Management Maturity and Continuous Improvement

Nottinghamshire County Council is committed to continually improving the maturity of its asset management practices and embedding asset management as a core organisational capability. Using recognised industry frameworks, including the Institute of Asset Management's 10 Capabilities Model, we will periodically assess our asset management maturity to identify strengths, improvement opportunities and priorities for development.

Improvement activities will focus on strengthening leadership, governance, data and information, risk management, decision-making, lifecycle planning and organisational culture. This will help ensure that asset management remains aligned with organisational objectives and continues to deliver value for residents, communities and businesses.

Maturity assessments, benchmarking, audit findings, peer reviews and lessons learned from delivery will be used to inform improvement plans and support the ongoing development of our Asset Management System. Through this approach, we will continue to enhance our capability, improve decision-making and strengthen our ability to respond to changing customer expectations, financial pressures and future challenges.

The Council will seek to achieve and maintain a mature and integrated asset management capability that is recognised as good practice within the highways sector.

Governance and Decision-Making

Effective governance provides transparency, accountability and assurance that asset management decisions are aligned with organisational priorities, statutory duties and available resources. Highway infrastructure asset management is governed through the Council's established constitutional arrangements, including the Scheme of Delegation, Financial Regulations and associated governance processes.

Strategic policy and investment decisions are made through appropriate governance forums and approval routes, with decision-making authority exercised at levels proportionate to the scale, complexity and risk of the decision being considered.

Strategic policies, strategies, major investment programmes and significant changes to levels of service will be considered and approved through the Council's Member governance arrangements, including Cabinet where appropriate. Operational investment decisions, programme development, lifecycle planning and day-to-day asset management activities will be undertaken through delegated officer authorities in accordance with the Council's Constitution, Scheme of Delegation and Financial Regulations. This ensures that decisions are taken at the appropriate level while maintaining clear accountability, transparency and effective governance

Key decision-making responsibilities include:

Cabinet & Portfolio Holder (s): Provision of political leadership and oversight of highway infrastructure investment and performance, approval of strategic asset management policies, strategies and significant investment programmes.

Executive Director(s): strategic accountability for the delivery of highway services and asset management outcomes.

Service Director(s): operational leadership, resource allocation, performance management and implementation of asset management policies and strategies.

The Highways Delivery Board: provides senior officer oversight of highways service delivery, capital and revenue programmes, investment planning, performance management and key operational risks. The Board reviews progress against strategic objectives, considers funding and investment priorities, resolves cross-service delivery issues and recommends significant investment and service decisions through the appropriate governance routes.

The Highway Asset Management Board: provides the primary officer governance forum for reviewing asset performance, investment priorities, lifecycle plans, risks, improvement actions and asset management maturity.

Highway Asset Management Teams: development and delivery of evidence-led programmes, lifecycle plans and investment recommendations.

Clear escalation routes are maintained for issues that exceed delegated authority, present significant risk, or require strategic consideration. These arrangements ensure that decisions remain transparent, proportionate and evidence-led, while providing appropriate accountability at all levels of the organisation.

This is supported by an Asset Management System (AMS) aligned to ISO 55000 principles, providing a structured framework for planning, delivery, monitoring, review and continual

improvement. The AMS integrates governance arrangements, asset information, risk management processes, lifecycle planning, performance monitoring and decision-making activities into a single coordinated system.

The Council is committed to maintaining, reviewing and continually improving the Asset Management System to ensure that it remains effective, proportionate, aligned with organisational objectives and responsive to changes in legislation, policy, technology, customer expectations and industry best practice. Performance information, audit findings, lessons learned and improvement opportunities will be used to strengthen the AMS and improve the maturity of asset management practices across the organisation.

6. Supporting Our Approach

Our culture is reflected in how we apply asset management principles in practice across the council and with our partners. This HIAM Strategy builds on that culture by embedding these principles into our asset management approach, aligning delivery with the Council Plan and the Council's six core approaches.

1. Your Voice Counts
2. Teamwork Matters
3. Prevention First
4. Being Open and Honest
5. Keeping it Practical
6. Making the Most of Resources

It sets out how highway asset management activities will contribute to better outcomes for residents, communities, and businesses by embedding engagement, partnership working, prevention, transparency, and value for money into day-to-day decision-making and long-term investment planning. This includes ensuring that customer and stakeholder views are reflected in decision-making, that collaborative working is used to maximise value, and that a preventative approach is taken to managing assets.

The Council is committed to transparency and openness, using data and evidence to support decisions and communicating clearly with stakeholders. It also recognises the importance of delivering practical, safe, and efficient services, while making the best use of available resources.



Figure 2: Highway Service Delivery Framework

This approach ensures that asset management contributes not only to the maintenance of the network, but also to wider outcomes such as economic growth, environmental sustainability, and community wellbeing.

Each of the six approaches is supported by clear and practical actions that guide how we plan, prioritise, and deliver highway services. Together, these commitments ensure that our principles are translated into consistent, transparent, and measurable outcomes for communities.

Approach	How We Will Support This
Your Voice Counts	Early and proportionate engagement on local priorities; co-design with communities; tailored urban, rural, and residential strategies; prioritising accessibility and equity
Teamwork Matters	Collaborative working with EMCCA, neighbouring authorities, districts, statutory undertakers and developers; coordinated programmes; shared learning and best practice; alignment of regional investment opportunities; increased local and regional supply chain participation
Prevention First	Risk-based, preventative maintenance; timely treatments to slow deterioration; reducing reactive repairs, carbon, disruption, and whole-life costs
Being Open and Honest	Accurate asset inventories; robust condition and performance data; evidence-based decision-making; publication of priorities, programmes, and progress
Keeping it Practical	Risk-based inspections aligned with the Well-managed Highway Infrastructure Code; clear response standards; competent delivery; safety-led decision-making
Making the Most of Resources	Low-carbon materials and methods; biodiversity-led verge and tree management; climate resilience; embedding social value in procurement and delivery

Table 2: Six Strategic Approaches and Delivery Actions

These organisational approaches support the delivery of Nottinghamshire's Highway Improvement priorities, ensuring that strategic commitments are consistently embedded in day-to-day asset management practice.

7. Strategic Framework

To ensure consistency and coordination, these principles are embedded within a structured strategic framework. This framework is underpinned by a comprehensive asset management approach, consistent with ISO 55000 principles and informed by recognised best practice, bringing together national policy, local priorities, stakeholder expectations, and statutory, financial, and operational requirements into a single, coordinated system.

This HIAM Strategy, alongside the HIAM Policy, forms a core component of the Council's strategic framework. The Highway Infrastructure Asset Management Plan (HIAM Plan) provides the supporting detail on how the HIAM Strategy is delivered in practice, including our approach to lifecycle planning, risk-based prioritisation, performance monitoring, and levels of service.



Figure 3: Asset Management Strategic Framework

These documents are complemented by a suite of asset-specific plans and technical guidance, ensuring that delivery is consistent, compliant with legislation, and aligned with the overarching strategic direction.

Together, this framework enables a structured and integrated approach to asset management, ensuring that strategic priorities are translated into effective, evidence-led delivery. It supports alignment with national standards while embedding asset management across all relevant activities, from long-term planning through to operational delivery and continuous improvement.

8. Preparing for the Future

While the strategic framework provides a strong foundation, it must remain adaptable to respond to future challenges and opportunities. The highway network faces a range of evolving pressures, including climate change, the need to reduce carbon emissions, increasing and changing patterns of demand, ageing infrastructure, and rising customer expectations.

In response, the Council will adopt a proactive and forward-looking approach to asset management. This includes integrating resilience into the design, maintenance, and renewal of assets; designing for maintainability and whole-life performance; and adapting the network to support changing travel behaviours and emerging technologies, including alternative fuel infrastructure.

We will strengthen the use of data, digital tools, and innovation to improve how the network is understood, managed, and maintained. This will support more efficient decision-making, improved targeting of investment, and better management of disruption to network users.

Our approach will ensure that environmental sustainability and carbon reduction are embedded throughout the asset lifecycle, including through the adoption of low-carbon materials, processes, and procurement practices. We will also respond to financial pressures by improving efficiency and ensuring that investment decisions balance performance, risk, and long-term value.

 Environment / Biodiversity Plan and maintain assets to enhance environmental quality and support biodiversity	 Climate Change Manage carbon impacts across the whole asset lifecycle
 Decarbonisation Promote low-carbon approaches through materials, design, and procurement	 Digital Agenda Maximise the use of data, digital tools, AI, and emerging technologies to support decision-making
 Customer Expectations Understand and respond to user and stakeholder needs and expectations	 Changing Network Demand Adapt network management, hierarchy, and operations to reflect changing travel patterns and use
 Increased Network Demand Manage demand, minimise disruption, and maintain network availability	 Resilience & Adaptation Ensure assets are resilient to extreme weather and future pressures, and adaptable to long-term change
 Designing for Maintenance Embed maintainability and whole-life performance into design and delivery	 Aging Assets Sustain performance and safety of ageing infrastructure through targeted investment
 Electric Vehicles Adapt the network to support alternative fuels and new technologies	 Financial Constraints Improve efficiency and optimise investment to manage financial pressures

Table 3: Key Future Challenges and Asset Management Responses

By anticipating future needs and adapting to change, we will ensure that the highway network remains resilient, sustainable, and capable of meeting the needs of users and communities.

9. Risk Management Framework

Responding effectively to these challenges requires a clear understanding of risk and how it is managed across the network. In this context, risk underpins our asset management approach, informing how investment is prioritised and how the network is managed. The Council applies a structured and consistent framework to identify, assess, and manage risks, taking into account factors such as asset condition, safety, service disruption, and environmental impact.

By understanding both the likelihood and consequence of asset failure, we are able to target interventions where they will have the greatest effect. This allows investment to be prioritised based on risk rather than condition alone, ensuring that resources are directed to where they deliver the most significant reduction in exposure and the greatest benefit to network users.

The Council recognises that available funding may not always be sufficient to maintain all assets at their desired levels of service. Where this occurs, decisions will be informed by risk, asset criticality, network need and value outcomes, enabling deterioration to be managed in a controlled, transparent and evidence-led manner. This approach ensures that available resources are directed towards assets and interventions that provide the greatest overall benefit while maintaining safety, resilience and serviceability across the network.

This risk-based approach is applied consistently across all asset groups and is fully integrated into our decision-making processes. It informs levels of service, lifecycle planning, and investment programmes, ensuring that decisions are evidence-led, proportionate, and aligned to wider organisational priorities.

We are also placing increasing emphasis on resilience and adaptation, particularly in response to climate change and more frequent extreme weather events. This includes designing, maintaining, and renewing assets so that they are better able to withstand future conditions, adapt over time to changing demands, as well as ensuring that the network can recover quickly from disruption.

Through this approach, risk management supports a proactive and forward-looking asset management system, enabling us to protect the network, reduce uncertainty, and deliver sustainable, long-term outcomes for the communities we serve.

Network Resilience

The Council will adopt a resilience-led approach to asset management, ensuring that highway infrastructure is capable of withstanding, adapting to and recovering from disruption caused by extreme weather, asset failure, operational incidents and changing network demands.

Resilience considerations will be embedded within investment planning, lifecycle management and decision-making processes, helping to maintain network availability, protect communities and support long-term service reliability.

10. Our Highway Infrastructure Asset Management Strategy

This risk-informed perspective shapes how we manage assets throughout their lifecycle and prioritise interventions. In doing so, it underpins our broader asset management approach, which focuses on delivering a safe, reliable, and integrated transport network, ensuring that

highway infrastructure supports dependable journeys, accessibility, and overall network performance.

In line with ISO 55000, asset management is delivered through a coordinated system of processes, data, decision-making tools, and governance arrangements that ensure value is realised from assets throughout their lifecycle.

Asset management is a strategic, whole-life approach, consistent with ISO 55000, that seeks to optimise value by balancing performance, cost, and risk over time. It brings together our practices, systems, policies, and processes into a unified framework, enabling us to manage both individual assets and the wider network effectively.

Through this HIAM Strategy, we promote more aligned and forward-looking decision-making. Investment choices made today are carefully considered to ensure they support the network of the future. By drawing on insight and expertise from across our highways service and supply chain, we ensure that the right people are involved in making balanced, evidence-based decisions.

A key component of this HIAM Strategy is the continued development and maintenance of high-quality asset data. Improved information allows us to better understand and assess risk, enabling more informed decisions on the operation, maintenance, and renewal of our assets. By adopting a “right intervention, right time” approach, we reduce reliance on reactive, short-term maintenance and improve long-term outcomes.

Our teams operate across the full asset lifecycle, recognising that decisions made today influence future service delivery. This approach enables us to anticipate and respond to evolving customer expectations, climate change challenges, and technological advancements.

We are committed to continuous improvement, using lessons learned from delivery and performance to refine and strengthen our asset management approach. Insights from asset management processes will also support targeted interventions that promote sustainable, accessible, and healthy communities, encouraging greener, active modes of travel and enhancing the places where people live and work.

In practice, we will:

- Define levels of service linked to safety, resilience, connectivity, inclusion, and environmental outcomes, proportionate to risk and available resources.
 - Maintain asset hierarchies and risk frameworks in line with national guidance.
 - Apply whole-life costing and multi-criteria analysis to balance investment across asset groups.
 - Plan interventions using evidence from condition data, inspections, risk assessments, and community feedback.
 - Coordinate programmes to minimise disruption and maximise wider benefits, including accessibility and active travel.
 - Continuously improve through audits, peer reviews, innovation, and learning from delivery outcomes.
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11. Asset Management Decision-Making Framework

At the centre of our asset management approach is a structured decision-making framework, ensuring that resources are directed where they will deliver the greatest benefit. This provides a consistent, transparent, and evidence-led basis for allocating limited resources, supporting effective investment decisions across the network to deliver the greatest overall benefit for Nottinghamshire.

Our approach is informed by a structured framework that balances multiple, and often competing, priorities. Rather than focusing solely on asset condition, we consider how investment decisions contribute to wider outcomes, including safety, network performance, customer experience, and environmental sustainability. This enables a shift away from reactive maintenance towards a more planned and long-term approach to managing the network.

In practice, investment decisions are supported by a combination of data, risk assessment, professional judgement and a cross-asset prioritisation approach, recognising that value is delivered through the performance of the network as a whole rather than individual asset groups in isolation. Options are assessed using lifecycle thinking and a whole street approach, taking account of the interdependencies between highway assets and the needs of all users.

This enables the relative benefits, risks, whole-life costs, resilience impacts and customer outcomes associated with different investment options to be evaluated consistently across the highway asset portfolio, ensuring that resources are directed towards interventions that deliver the greatest overall benefit, long-term value, accessibility and resilience for Nottinghamshire.

A consistent set of considerations is applied across all decisions, including:

- Safety and risk exposure to network users
- Asset condition and rate of deterioration
- Network function and hierarchy
- Customer impact, including accessibility and reliability
- Environmental and carbon performance
- Whole-life cost and long-term affordability

These are supported by analytical tools such as lifecycle modelling, deterioration forecasting, and multi-criteria analysis, which enable options to be evaluated and compared, ensuring that the most effective intervention is identified at the appropriate time.

By applying this approach, we ensure that decisions are aligned, proportionate, and clearly linked to organisational priorities and outcomes. This provides confidence that investment programmes are targeted effectively and deliver long-term value for residents, communities, and the wider network.

12. Key Assets

Applying a decision-making framework in practice requires a clear understanding of the assets that make up the network and how they perform. Together, these assets support a network that enables economic activity, community wellbeing, and connectivity across Nottinghamshire, providing access to employment, education, and essential services, and contributing to the resilience and vitality of places across the county.

Our highway network is made up of a wide range of asset types, including carriageways, footways and cycleways, structures, drainage, street lighting, traffic signals and intelligent transport systems, public rights of way, and the soft estate.

While each asset group performs a distinct function, they operate collectively as an interdependent system that supports the overall performance of the network. This requires a coordinated and consistent approach to management, recognising both the individual role of each asset and the way in which they function together.

Asset Inventory and Asset Data

A comprehensive and up-to-date asset inventory is fundamental to effective asset management. It provides a clear understanding of asset location, condition, and performance, and forms the foundation for decision-making, planning, and investment.



Figure 4: Highway Asset Inventory Summary

We maintain a structured asset inventory covering all major asset groups, supported by condition data, inspection regimes, and digital systems that ensure information is current, reliable, and accessible. This enables a consistent view of asset performance across the network.

All these combined assets have an estimated gross replacement cost of over £10 billion (excluding land).

We continue to strengthen our asset data through ongoing updates to our inventories as asset knowledge improves. This is supported by the commissioning of targeted inventory

and condition surveys, ensuring that our data remains accurate, comprehensive, and reflective of the current state of the network.

The asset inventory enables us to:

- Understand the extent and value of the network
- Assess condition and performance consistently
- Identify risks and priorities for intervention
- Support lifecycle planning and long-term investment decisions

Maintaining and continually improving this information is a key enabler of effective asset management, ensuring that decisions are based on robust evidence and applied consistently across the network.

We recognise the importance of all elements of the highway network and manage them with appropriate strategic consideration, reflecting their contribution to accessibility, safety, public health, and economic activity. This is supported by a consistent understanding of asset performance, enabling investment to be directed where it is most needed and where it will deliver the greatest benefit.

For each asset group, our approach focuses on maintaining accurate and reliable information, applying appropriate maintenance and renewal strategies, and prioritising interventions in a consistent and evidence-led way. Where appropriate, opportunities will also be taken to rationalise assets, reducing long-term maintenance requirements while maintaining network function and safety.

Through this coordinated approach, we will continue to manage the highway network as a resilient and integrated system, supporting the needs of communities now and in the future.

13. Delivering Our Asset Management Approach

Managing our assets effectively relies on a coordinated approach to delivery, supported by a range of enabling capabilities. These capabilities bring together customers, data, decision-making, people, and processes into a single, integrated system, ensuring that our asset management approach is applied consistently and effectively across the network.

Delivery of this HIAM Strategy is underpinned by a structured asset management system aligned to ISO 55000's 'plan-do-check-act' approach, ensuring a continuous cycle of planning, delivery, performance monitoring, management review and continuous improvement.

This is complemented by a broader, capability-based approach to asset management, ensuring that leadership, people, data, and decision-making are aligned to deliver consistent and effective outcomes.

We will continue to develop our asset management approach to deliver a safe, serviceable, and resilient highway network. This includes planning for the long term by designing for maintainability, engaging early with those working on the network, and ensuring that sustainability, carbon reduction, and whole-life performance are considered at every stage.

Delivery is enabled through a series of integrated capabilities, which together support effective planning, delivery, and continuous improvement.

Customer Expectations

Our highway network must meet a diverse range of user needs. We will shape our approach to managing and maintaining assets through a combination of customer and stakeholder insight, asset performance data, risk assessment and professional judgement. While decisions will remain evidence-led and focused on achieving the greatest overall public value, customer feedback will play an important role in helping us understand local priorities, service outcomes and emerging issues.

Understanding and responding to customer needs is a key component of effective asset management and underpins how we deliver value through the network. Meeting the needs of customers and stakeholders is central to our approach. We will continue to strengthen our understanding of user requirements and ensure that these are reflected in how assets are managed throughout their lifecycle.

Asset management provides a framework for planning, operating, maintaining, and renewing infrastructure in a way that delivers appropriate levels of service. To ensure that these reflect what matters most to users, we will actively use customer feedback and insight to shape decision-making, balancing safety, accessibility, reliability, and value.

We will embed customer considerations within lifecycle planning and investment decisions, ensuring that local priorities are reflected and that opportunities for small-scale improvements are captured within wider programmes of work. This ensures that asset management decisions are informed not only by technical need, but also by user experience and outcomes.

Communication

Delivering our approach effectively relies on clear, consistent, and two-way communication across all those involved in managing and using the network. Effective communication supports the development of a shared asset management culture, enabling collaboration across teams and partners, improving understanding of decisions, and ensuring that stakeholder views are reflected in how the network is managed.

We will strengthen two-way communication by clearly setting out our plans, engaging early with stakeholders, and providing opportunities for feedback. This includes publishing forward programmes, reporting on progress, and working collaboratively with communities and partners to shape local schemes.

Through this approach, communication becomes a core enabler of effective asset management, supporting transparency, trust, and continuous learning.

Key Asset Strategies

To translate strategic intent into practical delivery, our approach is supported by asset-specific strategies and robust information.

The Highway Infrastructure Asset Management Plan (HIAM Plan) sets out how individual asset groups are managed in line with corporate priorities and performance requirements. These strategies define the specific challenges, risks, and opportunities associated with each asset type, ensuring that decisions are informed and targeted.

DATA AND INFORMATION MANAGEMENT

At the core of these strategies is the effective use of data and information to support informed decision-making. High-quality data underpins all aspects of asset management, enabling a clear understanding of asset condition, performance, and risk. We will continue to strengthen our information management capability by ensuring that data is accurate, accessible, and integrated across systems, providing a consistent and reliable evidence base for decision-making.

The use of digital tools, machine-acquired data, and advanced analytics, including appropriate use of AI, will be further expanded to improve insight and support forward planning. This will enable more proactive interventions and better targeting of investment across all asset groups.

We will also strengthen our approach to cross-asset prioritisation, recognising that value is delivered through the performance of the network as a whole rather than individual assets in isolation. By developing consistent methodologies for prioritisation, we will ensure that investment is directed where it delivers the greatest overall benefit.

A focus on delivering the right intervention at the right time will remain central to our approach. By combining robust data, risk insight, and forward planning, we will improve how programmes are developed and delivered, maximising the value of available resources while maintaining asset performance.

High-quality data is essential to ISO 55000-compliant decision-making, enabling robust risk assessment and evidence-based prioritisation.

CROSS ASSET PRIORITISATION

Building on our evidence base, we take a system-wide approach to prioritising investment across the network, recognising that value is delivered through the performance of assets collectively rather than individually.

We will continue to strengthen our approach to cross-asset prioritisation, ensuring that investment decisions consider the relative needs, risks, costs, performance and outcomes associated with different asset groups. Using common decision-making principles and evidence-based assessment methodologies, investment options will be evaluated across the highway asset portfolio to support transparent and consistent decision-making. This enables resources to be directed where they will deliver the greatest reduction in risk, the greatest improvement in outcomes, and the greatest overall value from available funding.

FIRST TIME PERMANENT

This approach supports a more efficient and forward-looking model of delivery, focused on intervening at the most effective point in the asset lifecycle. By identifying the appropriate treatment at the right time, we maximise the value of investment while maintaining asset condition and network performance.

Repairs will, where feasible, be delivered as permanent first-time interventions, avoiding the need for repeat or temporary fixes. This “first time permanent” principle ensures that works are designed and executed to provide lasting outcomes, improve whole-life efficiency, and minimise disruption to network users.

To support this, we will make greater use of data and analytical tools to understand both current and future asset needs. This will include developing prioritisation methodologies and forward programmes that ensure interventions are timely, targeted, and aligned with long-term objectives.

Competence and Skills

The successful delivery of this approach depends on the capability and capacity of our people. Our people are critical to the effective delivery of asset management. We will continue to invest in building the skills, knowledge, and capabilities required to support a modern, data-driven, and risk-based approach.

This includes developing competencies in areas such as lifecycle planning, data analysis, carbon-aware design, and inclusive infrastructure. Training and development will support both technical capability and a wider understanding of how individual roles contribute to asset management outcomes.

We will also promote skills development through apprenticeships, professional growth, and engagement with local supply chains, ensuring that the benefits of investment are felt within the wider community. Alongside this, we recognise that workforce wellbeing underpins performance, safety and retention, and will promote supportive leadership, manageable workloads, and access to appropriate support, creating an environment where staff and our delivery partners feel able to raise concerns and contribute effectively.

Innovation & Continuous Improvement

Alongside developing our people, we will continue to improve how we work through innovation and learning. Continuous improvement is a core principle of our approach. We are committed to learning from experience, adopting good practice, and embracing innovation to improve how we manage the network.

This includes trialling new materials and construction methods, expanding the use of digital technology and sensor data, and applying lessons learned through audits, benchmarking, and peer review. Insights gained through delivery and performance monitoring will be used to refine processes and standards.

Continuous improvement is a core ISO 55000 principle, and by embedding it within our asset management system we ensure our approach remains responsive, efficient, and aligned to changing needs, integrating learning from performance, innovation, and delivery into our processes and standards.

Sustainability

All of our activities are delivered within a broader commitment to sustainability and long-term resilience. Sustainability is integral to how we manage highway assets. Decisions made through asset management have long-term environmental, social, and economic implications, and these must be considered alongside performance and cost.

We will continue to prioritise actions that reduce carbon emissions, enhance biodiversity, and improve resilience to climate change. This includes adopting low-carbon materials and construction methods, integrating climate adaptation into design and maintenance, and managing the soft estate in a way that supports environmental outcomes while maintaining safety.

Through this approach, asset management supports the transition to a more sustainable and resilient highway network, while continuing to meet the needs of users and communities.

14. Assurance, Review and Continuous Improvement

Assurance forms a fundamental component of the Council's Asset Management System and provides confidence that asset management activities are being delivered effectively, consistently and in accordance with established policies, procedures and standards.

The Council will maintain a structured programme of assurance activities to evaluate the effectiveness of its asset management arrangements and identify opportunities for improvement. These activities may include:

- Internal audits and independent reviews
- Compliance monitoring against internal procedures and external requirements
- Management reviews of asset management objectives, risks and performance
- Benchmarking against sector best practice
- Peer reviews and maturity assessments
- Performance reporting and trend analysis
- Reviews of significant projects, programmes and asset-related incidents

Outcomes from assurance activities will be considered through the Council's governance arrangements and used to inform decision-making, investment planning and service improvement. Significant findings, risks and improvement actions will be reported through the Asset Management Board and other appropriate governance forums.

Where non-conformances, weaknesses or improvement opportunities are identified, corrective and preventive actions will be developed, prioritised and monitored through appropriate action plans. Progress will be reviewed through management review processes to ensure that lessons learned are captured and embedded within the Asset Management System.

Asset management objectives, performance measures and key risks will be reviewed at least annually to ensure that they remain relevant, effective and aligned with organisational priorities. This approach supports continual improvement and promotes the long-term development of asset management capability and maturity across the organisation.

15. Performance Reporting

Effective asset management requires a clear understanding of how well the network is performing and whether investment is delivering the intended outcomes. Our approach to performance monitoring is therefore designed to provide both accountability and insight. Ongoing monitoring and evaluation then inform a structured approach to review and continuous improvement, ensuring that performance information is used to refine decisions and enhance future delivery.

We measure performance across a range of indicators that reflect the outcomes defined in our value framework, including safety, condition, reliability, customer experience, and

environmental performance. These measures allow us to assess how effectively our asset management activities are contributing to organisational objectives.

In addition to monitoring asset condition and operational performance, the Council will seek to understand and measure the broader benefits delivered through investment. This includes assessing outcomes such as improved resilience, reduced disruption, enhanced customer satisfaction, safer journeys, reduced carbon impacts and improved value for money

Performance monitoring is not a standalone activity; it forms part of a continuous cycle of improvement. Information gathered through inspections, condition surveys, and customer feedback is used to review outcomes, identify trends, and refine our approach.

This process follows a structured “plan–do–check–act” cycle:

- Planning investment and interventions based on evidence
- Delivering programmes in line with agreed priorities
- Monitoring outcomes and performance
- Using lessons learned to inform future decisions

We will also make use of benchmarking, audits, and peer review to challenge our performance and identify opportunities for innovation and improvement.

In addition to monitoring asset performance, the Council will seek to evaluate the benefits delivered through significant investment programmes and interventions. This will include consideration of outcomes such as improved network reliability, reduced risk, enhanced resilience, better customer experience, carbon reduction and whole-life value. Lessons learned from completed programmes will be used to inform future decision-making, ensuring that investment continues to deliver the intended benefits and supports continual improvement.

Through this approach, we ensure that our asset management practices remain dynamic, responsive, and focused on delivering long-term value.

16. Review of this HIAM Strategy

This Strategy forms part of the Council's wider Asset Management System and will be subject to ongoing monitoring, assurance and management review.

The effectiveness of the Strategy will be assessed through performance reporting, audit findings, compliance monitoring, benchmarking activities, management reviews and stakeholder feedback. These arrangements will ensure that the Strategy continues to support organisational objectives and reflects emerging risks, opportunities and best practice.

A formal review of the Strategy will be undertaken on a two-year cycle, or sooner where significant changes occur in legislation, national policy, funding arrangements, organisational structures or customer requirements.

Any revisions will be managed through the Council's established governance and approval processes. Improvement opportunities identified through reviews, audits, assurance activities and lessons learned will be incorporated into future updates, ensuring that the

Strategy remains robust, current and aligned with ISO 55000 principles and the Council's commitment to continual improvement.

17. Related Documents

This HIAM Strategy is supported by a suite of related documents that provide further detail on specific aspects of delivery and governance.

- Nottinghamshire County Council Our Council Plan 2025 - 2029
- Well-Managed Highway Infrastructure - A Code of Practice (as updated)
- ISO 55000: Asset Management 2024
- The Institute of Asset Management – Asset Management – an anatomy (July 2024)
- Better Connected: A Strategy for Integrated Transport (April 2026)
- Highway Infrastructure Asset Management Strategy (HIAM Policy)
- Highway Infrastructure Asset Management Plan (HIAM Plan)
- Highways Inspection and Risk Manual 2018
- Winter Service Plan
- Flood Risk Management policies
- Highway Network Management Plan
- Procurement, Social Value and Carbon Reduction Policies

18. HIAM Strategy Review Log

Version	Date	Summary of Change	Author	Approved by
1.0	2022	Original HIAM Strategy (2022 - 2027)	Highways	Cabinet
2.0	2026	Comprehensive revision to reflect ISO 55000, IAM, national policy, and a prevention-led, data-driven approach, including adoption of 'first time permanent' repairs and the highway improvement priorities	Highways	Cabinet Member – Transport and Environment