

North Northamptonshire Council

Highway Asset Management Strategy (January 2025)

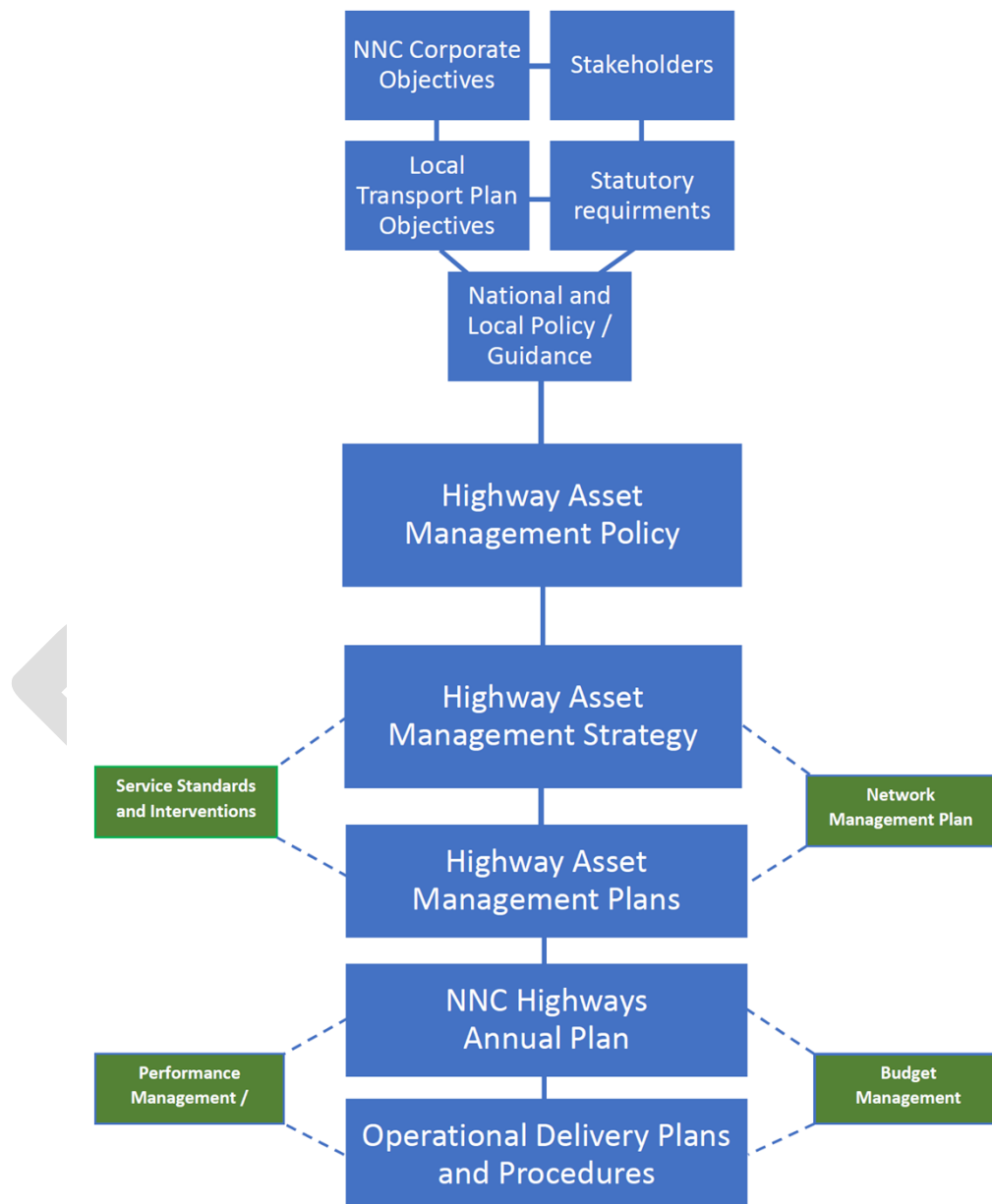
1 Introduction & Policy

- 1.1 North Northamptonshire Council (NNC) is responsible for maintaining a highways network that not only serves the residents of NNC but also supports the growth of the North Northamptonshire economy and promotes recreational and other activities. Effective and efficient management of the highways network is a key factor in the ability of the Council to deliver its services and enable the economy of North Northamptonshire to thrive.
- 1.2 Effective asset management is one of the key factors in delivering a highway network that meets North Northamptonshire's needs. Asset management will allow decisions to be made in a consistent manner and will allow the highway assets to be managed and maintained appropriately to ensure safety, serviceability and sustainability, as outlined in NNC's Highways Asset Management Policy.
- 1.3 The policy states that NNC will manage and maintain its highways assets in a planned, cost effective, coordinated, sustainable and efficient manner, over the whole life cycle of the asset.
- 1.4 The Asset Management approach follows best practice and incorporates guidance given in the UK Roads Liaison Group/Highway Maintenance Efficiency Programme (UKRLG/HMEP), Highway Infrastructure Asset Management Guidance Document, along with processes and procedures that are consistent with the requirements of BS ISO 55001:2014.
- 1.5 This Highways Asset Management Strategy (HAMS) is designed to set out NNC's long term direction for the management of the council's highways assets and application of the Highways Asset Management Policy. This document also includes the Highways Asset Management Objectives.
- 1.6 The strategy will be achieved by adopting plans and processes that will:
 - adopt a life-cycle approach to planning asset investment and management decisions.
 - balance competing needs across the highway network and selecting options that best meet desired outcomes and stakeholder requirements.
 - comply with mandatory, statutory and regulatory requirements.
 - monitor, evaluate and, where required, improve service delivery,
 - manage the risks of asset stewardship and operation to ensure continuity of service.
 - provide for present needs whilst sustaining natural resources for future generations.
 - adopt a continuous improvement approach to asset management practices and performance.
 - empower and motivate the workforce involved in the operation and maintenance of the network.
 - Outline maintenance regimes for each asset group that seeks to deliver value for money by prioritising works according to need and using cost effective maintenance techniques
- 1.7 Effective Asset Management is one of the key factors in delivering a highway network that meets North Northamptonshire's needs. It will ensure decisions are made in a consistent manner and allow the highway network assets to be managed and maintained appropriately to ensure safety, serviceability and sustainability.

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2 Relationship between Policy, Strategy, Objectives and Asset Management Plans

- 2.1 This document is a link between the Highways Asset Management Policy at a high level and the Highway Asset Management Plans at an implementation level. It sets out NNC’s strategy and objectives for the management of NNC’s highways assets.
- 2.2 The “line of sight” between organisational strategic direction and the day-to-day activities of managing assets is a vital component of the asset management system. This aligns the “top down” aspirations of the organisation with the “bottom up” realities and opportunities of the assets.
- 2.3 Highway Asset Management Framework



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3 The NNC Highways Asset

3.1 Asset Portfolio

- 3.1.1 This Highway Asset Management Strategy applies to all NNC's highways assets. All of these assets are managed in accordance with the recommendations contained within UK Roads Liaison Groups (UKRLG) Well Managed Highway Infrastructure – A Code of Practice.
- 3.1.2 Key assets include carriageways and paved areas, footways and cycleways, structures, drainage, street lighting, and traffic signals / associated technology. Wider highway assets include boundary fences, geotechnical assets, road markings & road studs, vehicle restraint systems, road traffic signs and environmental / soft estate assets (verges, grassed areas, trees, central reservations, amenity areas, cultural heritage assets and hard landscaping assets).
- 3.1.3 For the purpose of this strategy Public Rights of Way (PROW's) are not included. PROW's are managed through the Council's Right of Way Improvement Plan (ROWIP).

3.2 Asset Management assessment

- 3.2.1 Each main asset group asset is managed using asset management principles and intelligence based decision making (where possible) using a multicriteria analysis tool HEAT (Holistic Evaluation and Assessment Tool).
- 3.2.2 HEAT is a decision support tool that has been developed to assist in the prioritisation of capital maintenance schemes. HEAT ranks asset needs/schemes using weighted prioritisation factors across several different categories to come up with a multi-criteria prioritisation decision.
- 3.2.3 The following categories and factors are used for HEAT prioritisation:
- a) **Asset Condition** – physical condition, safety, history of emergency interventions.
 - b) **Network Impact** – traffic volumes/category of route, facility accessed (school, hospital, etc.), location (urban or rural), criticality (availability of alternative routes).
 - c) **Efficiency** – ability to combine with other schemes, impact on life extension, preventive maintenance.
 - d) **External** – social value (deprived area status), stakeholder/customer complaints and claims.
 - e) **Sustainability** – not included at this time but planning to allow for environment/ecology impact and carbon footprint.
- 3.2.4 HEAT is currently being used for carriageways, footways and bridges/structures scheme prioritisation and it is intended that this will be extended across all highway assets during 2025.
- 3.2.5 Details of the HEAT approach for each main asset group will be included in Asset management plans that will be produced for individual asset group / groups of assets. This will detail how the strategic priorities are delivered on an individual asset basis. This process provides the source information used to develop schemes for inclusion in the Council's Highways Annual Plan. Furthermore, this ensures the high level optimisation and prioritisation of schemes and embedment of the overarching concept of 'Prevention is better than cure' and the 'right first time' approach.
- 3.2.6 The role of local members to challenge forward plans is vital to ensuring that local priorities are incorporated into the Council's Annual Plans, whilst also taking into account asset condition as well as current and future levels of funding. Changes to planned funding levels may impact the desired asset management approach and re-modelling and evaluation will take place accordingly.

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3.3 Critical Assets

3.3.1 Critical assets are defined on an asset by asset basis dependent upon their location, condition and the impact any failure would have on the safe and smooth operation of NNC's highways network. Those that are critical will be identified and the risks associated with each asset will be addressed within the relevant asset management plan. This will include identification of factors that will influence non-performance and the impact of failure. Those factors will include:

- Location;
- Technical requirements for the asset;
- Failure mechanisms;
- How the asset becomes critical.

The consequence of failure of such assets will be high although they may not necessarily have a high likelihood of failure.

3.4 Consequence of Failure

3.4.1 Where critical and other assets may be subject to sudden failure, measures will be put in place as soon as practicable to ensure the safety of road users and to limit further deterioration of the asset. This may include closures, temporary works/provisions and/or implementation of diversionary routes.

3.4.2 In the event of a sudden asset failure, Annual plans will be reviewed, re-prioritised and amended to ensure sufficient funds are made available for the required repairs and renewal.

3.5 Desired Future State

3.5.1 NNC is committed to maintaining a highway network that is safe and serviceable to current levels, as well as carry out vital renewal work to help keep journeys safe and reliable to meet the council's vision and priorities. It is also committed to sustaining that network over the medium and longer term. It is recognised that limitations on funding may restrict maintenance spending from time to time and in such situations the network will need to be closely managed to maintain safety and availability.

3.5.2 Detail on current condition and desired future state for individual assets will be provided in the asset specific asset management plans.

4 Asset Management

4.1 The application of asset management principles is a fundamental element of this Highway Asset Management Strategy.

4.2 Asset management is a modern but well-developed discipline that is practised in many countries and across a wide range of industries. It is applied to the whole life of assets and determines the optimum way of managing them to achieve the desired outcomes. The stages of an asset's life covered by asset management are illustrated below:

4.3 The "operate, maintain & improve" phase is the core area for the management of highway infrastructure assets in NNC, but new and additional infrastructure will be introduced as the need rises and redundant infrastructure will also be removed where no longer required.

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4.4 There are a wide range of recognised definitions for asset management, all of which align with a core set of principles. The definition of Asset Management in standard BS ISO 55001:2014 is:

“coordinated activities of an organisation to realise value from assets”

4.5 Within NNC, there are additional requirements and pressures which drive the approach to asset management, for example, our service providers and supply chain and maintaining a balance of work across the wider portfolio of assets. These external influences mean that asset management principles are applied discretely for each asset type and that a fully co-ordinated approach cannot always be demonstrated. However, hybrid schemes and efficiencies in use of road space are sought where possible to reduce impact on road users.

5 Drivers for Asset Management

5.1 Changes in Investment Levels

5.1.1 The improved awareness and knowledge of the highway assets and their current condition and needs that arise from the application of asset management principles, will allow NNC to be positioned to act quickly should opportunities arise for additional funding. The Council is proactive in submitting business cases to the Department for Transport (DfT) to support such additional funding and it is anticipated that such funding will be forthcoming in the future.

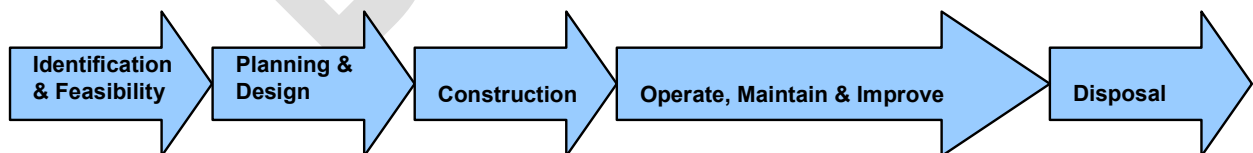
5.1.2 NNC will work cooperatively with its service providers and their supply chain to ensure that the available budget is spent wisely and delivered efficiently through the development of asset specific asset management plans.

5.2 Management of Service Providers and Supply Chain

5.2.1 The application of asset management principles and the collaborative working practices embodied in such principles will encourage the ‘working with’ rather than ‘working for’ culture necessary to be able to act quickly to address any changes, risks and opportunities arising. This will provide frameworks to encourage the early contractor involvement necessary to facilitate effective planning and programming, as well as timely decision making.

5.3 Life Cycle and Risk Management

5.3.1 NNC understands that the way it manages and maintains the highways assets today will have impacts on the way they will have to be managed and maintained in the future.



5.3.2 Life cycle planning comprises the approach to the maintenance of an asset from construction, operation and maintenance to end-of-life disposal. The operation and maintenance phases are the core areas for NNC. Life cycle planning will support levels of funding and investment decisions and substantiate the need for appropriate and sustainable long-term funding.

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- 5.3.3 One to three year programmes of maintenance and renewal schemes will be prepared in conjunction with NNC's service providers and supply chain and populated with schemes developed and prioritised on the basis of asset need determined from the condition of the assets, network impact, customer and sustainability factors.
- 5.3.4 Funding is allocated across different asset groups giving consideration to the above factors but more directly to impact on the safety of the travelling public and the integrity of the network in an environment where funding may be constrained.
- 5.3.5 NNC understands that the way it carries out repairs and maintenance to assets has an effect on their ultimate service life and advocates a right first time approach. NNC will always look to optimise this relationship and avoid short term repairs and treatments that would only defer problems. Whole life cost analyses will be used when making engineering decisions for repair and treatment options.
- 5.3.6 The benefits of a systematic approach to managing current and future risk at strategic, tactical and operational levels are recognised. Risk management will be a fundamental component of NNC's management system for its assets.

6 Asset Management Objectives

The Asset Management objectives provide the specific and measurable outcome or achievement required to implement the Highway Asset Management Policy and this Highway Asset Management Strategy.

6.1 Factors Influencing Objectives

The Highway Asset Management Objectives derive from the following sources:

- Vision, Priorities and Objectives of NNC
- The Highway Asset Management Policy and this Highway Asset Management Strategy
- The requirements of BSI ISO 55001:2014
- Commercial requirements
- The mechanism of delivery of management of the various assets

6.1.1 NNC will establish and will maintain asset management objectives, which:

- a) Are measurable (i.e. quantified and/or capable of being demonstrated as achieved through objective assessment);
- b) Are derived from, and consistent with, the asset management strategy;
- c) Are consistent with NNC's commitment to continual improvement;
- d) Are communicated to all relevant stakeholders, including contracted service providers, where there is a requirement that these persons are made aware of their obligations;
- e) Are reviewed and updated periodically to ensure that they remain relevant and consistent with the asset management strategy;
- f) Consider legal, regulatory, statutory and other asset management requirements;
- g) Take account of the expectations of relevant stakeholders and financial, operational and business requirements;
- h) Take account of asset management related risks;
- i) Consider improvement opportunities including new technologies and asset management tools, techniques and practices.

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6.2 Objectives

6.2.1 NNC's priorities are incorporated within the asset management objectives under six headings as follows:

1. Planning for the Future

- a) Improve the quality of asset data collection and provide systems which allow data to be easily interrogated and interpreted to identify asset needs and opportunities.
- b) Make full use of asset data when making asset investment decisions.
- c) Individual asset leads to acknowledge the need to take a long-term view of their assets and work towards implementation of a Lifecycle Asset Management Plan (10-year plus).

2. Growing our Capability

- a) NNC will maintain processes and procedures that are consistent with ISO 55001:2014.
- b) NNC and its service providers will maintain the operational training levels of its teams to deliver their roles in a safe and competent manner.

3. Building Stronger Relationships

- a) NNC will work closely with other agencies operating in North Northamptonshire to offer a joined up approach to the delivery and support of renewal and other projects.
- b) NNC will extend opportunities for asset management training and guidance to its collaborative delivery partners.
- c) NNC will work collaboratively across disciplines to optimise network occupancy.
- d) NNC will communicate work programmes to key stakeholders.

4. Efficient and Effective Delivery

- a) NNC will actively seek opportunities to share roadspace.
- b) NNC will encourage innovation, bringing new materials, plant, techniques and practices into use.
- c) NNC will make asset led decisions to ensure that the available funding for each asset type is spent in the most effective way as outlined in each asset specific asset management plan.
- d) NNC will work with its service delivery partners to ensure work is planned effectively and productivity is maximised.

5. Improving Customer Service

- a) NNC will engage with stakeholders to improve the overall understanding of its highway maintenance activities, programmes and priorities, and the accessibility of information.
- b) NNC will introduce a priority rating for enquiries which drive an improvement in timeliness of responses.

6. Health, Safety & Environment

- a) NNC will facilitate road safety audits for all new designs and improvements.
- b) NNC will identify and implement environmental and carbon initiatives.
- c) NNC and its service provider will include asset management related competencies within its competency framework and role descriptions.

6.2.2 The individual highway asset management plans will develop these objectives into specific deliverables and a plan that is relevant to the levels of service and the condition, nature and needs of each highway asset.

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6.3 Desired Asset Condition/Outcomes

6.3.1 Effective maintenance and operation of the NNC Highway Network is essential in achieving the Asset management objectives.

6.3.2 The various assets comprising the NNC Highway Network have different design lives and maintenance / renewal intervals. A common desired condition or outcome cannot, therefore, be defined.

6.3.3 Desired future asset condition/outcomes for individual assets are outlined as follow:

Highway Asset	Quantity	Future condition/outcome
Carriageways	A roads – 287.15 km B roads – 86.84 km C roads – 463.93 km Unclassified - 1010.36 km Total – 1848.28 km	Investment focussed on maintaining a steady state by adopting a preventative maintenance approach while maintaining a safe and serviceable carriageway network
Footways	1964.96 km	Investment focussed on maintaining a safe and serviceable footway network using preventative methods where possible, giving priority to footways with the highest footfall
Cycleways	<i>Asset Data collection ongoing</i>	Investment focussed on maintaining a safe and serviceable cycleway network
Structures	Bridge and large culverts – 222 no. Footbridges – 26 no. Subways – 23 no. Retaining walls – 39 no. Sign/Signal Gantry – 3 no. Masts – 8 no. Culverts – 401 no. Rights of Way Footbridges longer than 7.5m span* - 92 no.	Investment focussed on efficient maintenance and long term management of highway structures in order to maintain an open and safe highway network.
Traffic Signals	Traffic Signal Junctions – 62 no. Traffic Signals – Pedestrian and Toucan Crossings – 126 no.	Investment focussed to provide efficient economical systems to manage traffic flows effectively, reduce congestion and allow automatic fault reporting. The systems employed will be maintained to a usable standard to ensure traffic conflicts are avoided and to maintain safe passage for all highway users.

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Drainage	Gullies – 75918 no. Grips – 19499 no.	Investment focussed on investigating and improving drainage systems where flooding is impacting properties, while maintaining an open and safe highway network
Street Lighting*	Columns – 24590 no. Illuminated signs – 2965 no. Illuminated Bollards – 302 no. Beacons – 676 no. CMS Base Station – 18 no. Feeder Pillar – 106 no.	Investment in PFI contract targets improvement in street lighting stock and maintenance at the improved level throughout the duration of the contract.

*Street Lighting is managed through a PFI Contract with Balfour Beatty which started in 2011 and runs to 2036

- 6.3.4 The individual Highway Asset Management Plans will define the desired condition, outcomes and maintenance requirements of each asset in detail. However, the over-arching requirement is that the assets are assessed and maintained to remain in a condition where they support the safe operation and availability of the road network and other associated assets. This goal is achieved by planned regular inspection, and consequent repairs / maintenance works programmes.
- 6.3.5 The aspiration is not to achieve a defect-free asset, but one where defects that affect safety and serviceability are addressed.

7 Stakeholders

- 7.1 There are many stakeholders that may be affected or have an impact upon management of the highway asset. The requirements and expectations of each of these may be the same – a safe, serviceable and sustainable network. It is the prioritisation they each give to these outcomes that differ.
- 7.2 NNC will ensure that relevant information associated with asset management activities (i.e. schemes or maintenance activities) will be actively communicated through engagement with relevant stakeholders. A Customer and Stakeholder Engagement Plan will be maintained to ensure effective communication with stakeholders.
- 7.3 Key stakeholders include NNC Members, Parish / Town Councils, NNC Highways Staff, Kier Highways Asset Management Team, Kier Highways Operational Teams, NNC SLT, members of the public, utility companies, local businesses and community organisations.
- 7.4 To help support the needs of local communities, the Council is open to exploring opportunities to work with Parish and Town Councils that may allow them to help support the delivery of appropriate highway maintenance activities at a local level.

8 Highway Asset Management Plans

- 8.1 This strategy will be delivered through specific Highway Asset Management Plans (HAMP's) for each key asset group. These plans will contain the specific requirements for the desired future state of each asset with due reference to deterioration mechanisms, network resilience and critical assets.

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Each HAMP will address the following criteria:

- A Definition of the **A**sset
- C The current **C**ondition of that asset and procedures for inspecting the condition
- M Risk-based and value management-based proposals for **M**aintenance of that asset
- I Risk-based and value management-based proposals for **I**mprovement of that asset

8.2 Each HAMP will also include a section on the visions and goals for that asset as well as information on the desired future state, the condition for that asset, and service standards and repair interventions.

8.3 The HAMP's will be simple operational documents containing essential information that will help asset managers and operational delivery teams manage those assets.

9 Optimisation and Prioritisation

9.1 NNC's approach to managing and maintaining the North Northamptonshire highway assets will be holistic and end-to-end. That is, NNC will always consider how the repair and maintenance of one particular asset or asset group impacts on other assets.

9.2 Forward programme meetings will be held and attended by individual asset managers, delivery managers and budget holders, to agree and coordinate plans for future maintenance schemes. A 3 year rolling Annual Plan will be developed each year, containing planned funding across all asset groups. The first year of the programme is approved for schemes in the following financial year (April to March) in February of each year.

10 Communication

10.1 A Customer and Stakeholder engagement plan will be developed to ensure all issues relevant to Highways Asset Management including this strategy are communicated to all relevant stakeholders. This plan will also outline the mechanisms by which the service engages with its parish/ town councils, its wider customer base and local members, around highway maintenance activities.

11 Performance and Improvement

11.1 The Highway Asset Management Policy and Strategy will be reviewed annually, once yearly condition survey results have been collated. Asset management performance against the highway asset management strategy will be assessed against the desired outcomes outlined for each asset in section 6.3 as detailed in the Asset management plans.

11.2 Following review, changes will be made to the strategy and if necessary the highway asset management plans, to address any shortcomings in terms of the performance and effectiveness of the approach taken. By reviewing the Strategy, the Council will be able to make informed decisions to accommodate any changes in funding and priorities within the longer term forecasts.

11.3 An Asset Management Improvement Plan will be developed to help support the continuous improvement of NNC's Highway Asset Management practices. This will include analysis of the quality of asset data and the way it is collected, along with consideration for the incorporation of new and emerging technologies where appropriate.

11.4 Opportunities will be sought to benchmark performance against that of adjacent authorities.

12 Competencies and Training

12.1 NNC considers the competency and motivation of all involved in the delivery of asset management related duties to be essential, be they directly employed by NNC, service providers or by supply chain partners. Asset management competencies will be included within NNC's competency framework and training will be provided where necessary.

13 Good Practice

13.1 North Northamptonshire Council is committed to developing and implementing best practice and will make best use of the following forums where appropriate:

- Highway Maintenance Efficiency Programme (HMEP)
- The Chartered Institute of Public Finance and Accountancy (CIPFA)
Highways Asset Management Planning Network
- Highways Asset Management Financial Information Group (HAMFIG)
- UK Roads Board
- Midlands Highways Alliance (MHA)
- ADEPT Asset Management Working Group
- Cross Contract collaboration and sharing of best practice
- National and regional conferences
- Professional Institution engagement
- Competency training