

Knowsley Metropolitan Borough Council



Highway Asset Management Strategy

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FOREWORD

I have pleasure in introducing Knowsley Council's new Highways Asset Management Strategy which sets out our approach to the management of Knowsley's highway assets in future years. I recognise the vital role that our highways play in ensuring the success and growth of our local and regional economy.

This Strategy sets out how the highway service will deliver against the Council's key priorities, taking into consideration customer needs, asset condition and best use of available resources. Our strategy demonstrates how we will apply national best practice and will assist us in securing funding for highway maintenance projects in the future.

The importance of asset management and continuous efficiency has also been reinforced by Central Government, where future funding streams will be linked to those authorities who can demonstrate value for money and efficient delivery of highway maintenance activities.

Formal reviews of both the Highway Asset Management Strategy and Asset Management Policy will be undertaken annually, and we shall continue to work in partnership with our customers, elected Members and staff.



Cllr Tony Brennan

**Cabinet Member
Regeneration and Economic Development**

EXECUTIVE SUMMARY

The highway network is the Knowsley Council's most valuable corporate asset, currently valued at around £1 billion. This includes ALL aspects of the network including footways, carriageways, street lighting, structures and land.

Knowsley Metropolitan Borough Council recognises the importance of its highway infrastructure and how an effectively maintained and managed network contributes to the achievement of its corporate goals.

In order to ensure we develop and deliver a strong highway network to support these ambitions, Knowsley Metropolitan Borough Council has produced a Highway Asset Management Policy and Strategy to identify how our key objectives will be met. In addition, the strategy will outline our statutory obligations and stakeholder needs in relation to the overall performance of the highway infrastructure, within any funding constraints.

The strategy aims to provide the basis for the authority to adopt sound asset management principles to enable us to achieve economic prosperity and growth.

This strategy enables us to consider the whole life of the asset allowing for advance planning to secure greater efficiency, collaborative working and value for money.

INTRODUCTION

Knowsley Metropolitan Borough Council recognises the importance of its highway infrastructure and how an effectively maintained and managed network contributes to the achievement of its corporate goals.

Knowsley is currently undergoing an economic resurgence, being ideally placed to benefit from the economic opportunities offered by the Liverpool City Region and the Northern Powerhouse. Its superb motorway and rail connections place it just 15 minutes from Liverpool City Centre and 30 minutes from Manchester. With around 3,900 businesses employing 64,000 people, the Borough makes significant contribution to the City Region's economic growth ambitions through key growth sectors such as Freight and Logistics, and Advanced Manufacturing.

There are more than 61,000 households in the Borough with a target of an additional 6,300 new homes to be delivered between now and 2028. This new housing will help to rebalance the local housing offer to meet the needs of existing residents and attract new residents to Knowsley.

Since 2010, Knowsley has been hit harder by national Government funding cuts than any other local authority in the country. This trend is expected to continue to 2020. The Highway Asset Management Framework, Policy and Strategy sets out how Knowsley Metropolitan Borough Council will best manage the highway network taking into consideration resident and road user's needs, local priorities, asset condition and best use of available resources.

This document presents the Council's Strategy for the management of the Council's highway assets as at December 2018 and considers planning for the longer term.

The Policy and Strategy has been produced following the assessment of stakeholder needs, local priorities and asset condition. It also ensures that both short and long-term needs are appropriately considered, whilst delivering a minimum whole life cost approach to our Highway Assets.

The Strategy will be used to inform the highway maintenance schemes programme to be implemented within the Councils Transport Delivery Plan. Whilst a selection of these schemes will be driven predominantly by condition data, the involvement and role of local Councillors to challenge the process is vital to ensure that local priorities are incorporated into delivery plans.

STATUTORY OBLIGATIONS

Knowsley Council has a number of legal obligations and powers that govern the way that it manages the network and highway assets.

The Highways Act 1980 sets out the main duties including a duty to maintain roads in a safe condition. There is a duty under *The Traffic Management Act 2004* to keep the traffic moving on the road network.

OUR COUNCIL STRATEGY AND LOCAL TRANSPORT PLAN

Knowsley Borough Council has joined with neighbouring Merseyside authorities including Merseytravel, to form a Combined Authority (CA). The six authorities, Knowsley, Halton, Liverpool, St Helens, Sefton and Wirral have combined to deal with strategic policy areas such as economic growth, transport, tourism, culture, housing, and physical infrastructure.

Knowsley's initial Asset Management Policy & Strategy was developed to align with the Local Transport Plan Merseyside (LTP3) Implementation Plan for Knowsley, which ran from 2011 – 2015. However, on 1st April 2015, a new integrated plan for the Combined Authority was produced, titled the Transport Plan for Growth (TPfG) which extends until 2024 (2026 for Halton Council). This sets out a Joint Strategic

Transport Framework for the LCR CA, together with a 6-year Investment Plan. This document emphasises how important transport is to our region and is a key growth enabler and plays a key role in achieving economic growth across the Combined Authority.

Although the highway network discussed in the following section is the current position, it is likely that there will be changes in responsibility for the management and maintenance of certain parts of this network. These will result from the devolution of highway, traffic and street authority powers to the Mayoral Combined Authority (MCA) and the associated designation of a Key Route Network (KRN). The responsibility for asset management and Whole of Government Accounts (WGA) for these changes is still in the process of being finalised and will be reported on when completed.

The creation of the Combined Authority in April 2014 brought strategic transport powers within the remit of a single body. This was intended to better co-ordinate transport across the city region, by bringing together the separate transport planning regimes covering Merseyside and Knowsley. The KRN is a network of strategically important highway routes within the City Region, for which the Combined Authority would have a range of defined highway and traffic powers and responsibilities as Highway Authority' These powers are to be devolved back to the respective Councils in the immediate term whilst the CA evolves and develops.

Our highways asset management approach will also make a direct contribution towards helping achieve the national shared priorities for transport identified in the Local Transport Plan (LTP). In particular, the Plan will help the Council achieve delivery of accessibility, tackling congestion, providing safer roads and contributing towards improvements in air quality.

OUR STRATEGIC OBJECTIVES

A STRATEGIC APPROACH

The Council expects to be the custodian of its highway assets into the future; it understands that the way it manages and maintains those assets today will have effects on the way they will have to be managed and maintained in the future.

The Council will make use of best practice whole life cost analyses when making engineering decisions for repair and treatment options.

The Council's approach to managing and maintaining its highway assets will always consider how the repair and maintenance of one particular asset or asset group impacts on other assets. Also, the Council understands that the way it carries out reactive repairs and routine cyclic maintenance to assets has an effect on their ultimate service life. The Council will always look to optimise this relationship.



The Council will regularly review the computer systems and databases used to aid asset management. Where shortcomings are identified or new technology becomes available the Council will adopt a business case approach to ensure that any financial investment will provide a proper return.

STAKEHOLDERS

The Council understands that it manages and maintains the highway assets for the benefit of the residents, visitors and businesses of the borough. The Council's Communication Strategy will seek to develop practicable ways to determine the level of service that stakeholders require of the highway assets.

The Council will make sure that the way the highway network is performing is communicated to all stakeholders, using the most appropriate media.

RESOURCES

The Council recognises that its highway service must be managed and delivered within financial constraints. Highway maintenance is currently funded from several sources. Day to day, reactive and routine maintenance is supported by revenue funding, which comprises funds provided by central government through the formula grant and additional revenue raised locally. Structural maintenance, which enhances the value of the asset, is in the main funded by capital allocations from central government.

The central government revenue allocations are not 'ring-fenced' for highway purposes. In terms of capital, the allocation from Government is made to Merseytravel as the Integrated Transport Authority. The highway maintenance element of this capital is currently pass-ported directly to the Merseyside districts on an agreed formulaic basis. There are potentially other capital funding mechanisms available, for example the use of local capital receipts, Prudential Borrowing or private/public partnership initiatives.

Central government also establishes funding pots for various specific highway-related purposes, for example the Single Growth Fund, Local Pinch Point Fund and the Local Sustainable Transport Fund. The Council can compete with other authorities to secure an allocation via a competitive bid.

With the development of an asset management approach the Council will be better able to support longer-term commitment of budgets. It will allow it to estimate the funding required to deliver the required level of service and to provide the tools and processes to ensure efficient and effective use of available resources.

MANAGING RISK

Knowsley Council has adopted a policy for highway safety inspections that incorporates a risk assessment approach to the categorisation of highway defects. This aligns with the new Well Managed Highway Infrastructure: A Code of Practice.

The Council acknowledges the benefits of a systematic approach to managing risks, at strategic, tactical and operational levels and will include risk management in all parts of its asset management process.

For the Council as a whole, the effective management of risk is an essential part of business planning and performance management.

PERFORMANCE MANAGEMENT AND BENCHMARKING

In conjunction with the setting of levels of service for individual assets and for the network as a whole, the Council will collect process and report performance data so that all stakeholders can see whether targets are being met.

Knowsley Council has set out a Performance Management Framework (PMF) to define specific service levels and performance measures required to achieve this objective, and these will be reported annually to the Asset Management Steering Group, although some measures will be undertaken more frequently and reported in line with existing performance reporting requirements. Targets and frequencies will be set out in the PMF.

The Council will, where practicable, look to benchmark its performance against other highway asset owners in the local region and nationally to identify all opportunities for improvements in service delivery.

KNOWSLEY'S HIGHWAYS ASSETS

Knowsley has superb motorway and rail connections which place it just 15 minutes from Liverpool City Centre and 30 minutes from Manchester, with around 3,900 businesses employing 64,000 people, and more than 61,000 households in the Borough.

The public highway network is currently valued at £1.036bn and includes:

- 607 km of carriageways
- 804 km of footways
- 141 bridges and other structures
- 19,762 street lighting columns
- 27,700 road drains
- 75 signalised junctions
- 16 variable message signs

As well as traffic signals, road signs, kerbs, land, safety barriers and guardrails, road markings and other street furniture.

APPROACH TO ASSET MANAGEMENT

As a proactive member of the Liverpool City Region Combined Authority, Knowsley recognise the strategic role that a strong, robust and good condition highways network can play in strengthening our region's economy and residents' well-being. As such, our overall highways strategy is to continue to work with the other LCRCA members to improve our Key Route Network as well as balancing the needs of our local highways to ensure we provide our residents and road users with a high performance network.

We undertake prioritisation of all of our asset groups and ensure that we recognise impacts across asset groups to integrate as much as possible. We are adopting a largely preventive maintenance strategy to minimise expenditure yet extend the life of our assets.

We carry out different types of maintenance:

Reactive Maintenance – examples of these small scale works would include pothole repairs, street lighting outages to keep the network in a safe condition.

Routine Maintenance – regular works to keep the network in good condition and working well, such as gully cleansing, sweeping streets and cutting grass.

Planned Maintenance – large scale maintenance to ensure the network is in a good condition and to extend life expectancy of an asset. This includes road resurfacing and bridge repairs.

We have limited funding and are not able to carry out all of the works that are required across the network. The programme of works each year is based on those that are most urgent and those which will save money by preventing costly future maintenance. We consider the following sources of information;

- Safety inspections to determine condition and performance of an asset
- Specialist surveys using machines and visual inspections
- Reports of defects from residents, elected members and other stakeholders
- Age profile of the asset
- Hierarchy of importance based on their importance to users

Highway Asset Hierarchies

In the application of the strategy it is important to recognise that the unavailability of certain routes and infrastructure would have a greater impact on Knowsley's economy and communities than others. Developing an asset hierarchy helps to identify critical highway infrastructure which forms a crucial part of the highway network, and whose management may need to be prioritised over that of other routes where the impact of non-availability is significantly lower. Developing and applying an asset hierarchy can help address this issue, and ensure the needs, priorities and actual use of each road in the network is considered when developing a maintenance strategy.

It is worth noting road classification should not be used as the sole basis for developing a hierarchy, as there may be differences between the classification of the road and its function or its criticality.

Knowsley's asset specific hierarchies can be found here ([link to be inserted](#))

Key Route Network (KRN) for the Liverpool City Region Combined Authority

Knowsley Borough Council has joined with neighbouring Merseyside authorities including Merseytravel, to form a Combined Authority (CA). The six authorities, Knowsley, Halton, Liverpool, St Helens, Sefton and Wirral have combined with the intention to better co-ordinate transport across the city region, by bringing together the separate transport planning regimes covering Merseyside and Knowsley.

It is likely that there will be changes in responsibility for the management and maintenance of certain parts of this network. These will result from the devolution of highway, traffic and street authority powers to the Mayoral Combined Authority (MCA) and the associated designation of a Key Route Network (KRN).

The KRN is a network of strategically important highway routes within the City Region, for which the Combined Authority would have a range of defined highway and traffic powers and responsibilities as Highway Authority' These powers are currently devolved back to the respective Councils in the immediate term whilst the CA evolves and develops.

Resilient Network

Maintaining a network which is resilient to disruption is a critical function of a local highway authority Knowsley aims to develop and maintain a core highway networks which is reliable in operation and resilient to disruption, maintaining access for people and resources wherever possible.



It is essential that Knowsley build resilience considerations into the decision making process for major schemes and routine maintenance activities for four key reasons:

- Economic growth – a resilient and reliable transport network is essential to support the local economy and encourage future growth;
- Cost saving – money can be saved by reducing the need for expensive future maintenance;
- Reputation – maintain or enhance the Council’s reputation and avoid adverse publicity through infrastructure failure; and
- Duty – the Local Transport Act 2008 placed a duty on Local Transport Authorities to have regard to the Government’s adaptation policies in their Local Transport Plans.

Knowsley’s Network Resilience Plan can be found here. ([link to be inserted](#))

Asset Specific Strategies

Specific challenges and proposed approaches are set out below:

CARRIAGEWAYS

Roads represent the largest element of the highway asset and account for an estimated 70% of the total asset value. Maintaining their condition and preserving their value is vital to the success of the Council’s maintenance strategy.

Carriageways in the Borough are generally in good condition, our biggest challenge is to maintain this level of condition and performance within an environment of reducing budgets, increased costs, and less available, skilled resources.

The desired outcomes for the most effective management of our carriageway asset are;

- Maintain carriageway network in safe condition
- Maintain carriageway network with minimum whole life cost
- Maintain steady state
- Undertake more planned preventative maintenance
- Meet statutory duties

Our maintenance strategy will align with the overall KRN requirements (from Knowsley’s perspective), and accommodate the maximum level of funding available to undertake both structural and preventive maintenance activities on the prioritised network.

The future approach is to undertake more preventative maintenance treatments on carriageways at the 'mid-life' condition. This will reduce the whole life cost of the carriageways as we will be eliminating lengths which would otherwise have deteriorated requiring more expensive treatments to remain in service.

FOOTWAYS

The maintenance of our extensive footway network is a critical activity if we are to achieve our strategic asset management objectives to provide a safe, serviceable and sustainable network across the Borough.

Over the last decade, Knowsley have implemented a maintenance strategy to increase the percentage of bituminous type footway surfaces, thereby reducing our long-term maintenance burden and reducing considerable risk events due to slips and trips, leading to a reduction in insurance claims over the long term.

Knowsley Metropolitan Borough Council maintains approximately 804km of footways and following significant increases in bituminous surfacing footway types across the borough, we are now faced with minimal funding availability to carry out anything other than preventive surfacing treatments on the component of the footway (which makes up nearly 70% of our footway network).

Our proposed strategy is to continue or possibly increase the level of preventative works on the footways, only undertaking structural maintenance and reconstruction where condition is too poor that it presents a significant risk to members of the public or safety and integrity of the network. This will extend the life of the footway sections whilst keeping expenditure to a minimum, in line with current and future budget estimates.

The desired outcomes for the most effective management of our footway asset are;

- Continued level of bituminous footway areas, with increases over time to reduce future maintenance costs
- Continue to maintain footway network in safe condition
- Maintain a steady state level of performance across the whole footway network
- Meet statutory duties

We also recognise that we require more timely and accurate asset data on our footway network and will include sufficient funding to continue our survey process to ensure that we are making the most informed decisions about works and maintenance treatments based on up-to-date asset information.

BRIDGES

Bridges are an important asset to Knowsley and those carrying public roads have a high value.

With 144 structures to be maintained, the desired outcomes for the most effective management of our bridges and structures assets are;

- Meet statutory duties.
- Maintain bridge stock in safe/serviceable condition to required standards.

In the short/medium term, Knowsley will continue to provide a consistent level of funding to maintain structures generally to a 'steady state'. Knowsley will continue to seek additional Capital Investment Funding for carrying out reconstruction or Major Improvement works.

The approach to management of the Knowsley structures asset will be to carry out longer term planning and development of Lifecycle Plans for the structures stock. This lifecycle approach to structures will align with the overall Highways Asset Management Framework being developed.

TRAFFIC SIGNALS

Knowsley Metropolitan Borough Council maintains approximately 134 traffic signal installations including, traffic signal junctions, pelican crossings, puffin and toucan crossings. In addition, the Council operates a number of Intelligent Transport Systems (ITS) including:

- Urban Traffic Management and Control System (UTMC) - Siemens Stratos/SCOOT
- Traffic Signal Remote Monitoring System (RMS) - Siemens
- Traffic Signal Fault Management System (FMS) - Siemens InView
- CCTV – 10 cameras
- Automatic Traffic Counters – 14 fixed sites

The desired outcomes for the most effective management of our traffic management systems are;

- Meet statutory duties
- Maintain equipment in serviceable condition
- Operate effectively to reduce traffic congestion

The further employment of low energy controllers and LED lighting will reduce energy costs and in the case of LED technology this will reduce the demand for reactive maintenance given the greater reliability associated with it.

HOW IS THE SERVICE DELIVERED

Our highways contract is with Tarmac Trading Limited. This contract started in February 2016 and will operate for a minimum of five years with a possible extension of a further three years.

The partnership with Tarmac encourages an asset management approach to achieve maximum life from treatments and to minimise costs wherever possible. The partnership has brought about new technology and survey techniques to help improve our management of the road network.

Quality is very important to us and we ensure robust monitoring and assurance measures are in place. This includes routine site inspections and audits of the work carried out by both our contractor and their sub-contractors. Where work fails to meet the required standards it is re-done by the contractor at no additional cost.

THE ENVIRONMENT

We take our responsibility to the environment very seriously. This is demonstrated through;

- Use of low noise surfacing materials whenever we can
- Recycling and reusing carriageway materials wherever possible
- Use environmentally friendly treatments and techniques wherever possible

STRATEGY REVIEW

The strategy will be reviewed regularly to allow informed decisions to be made in order to accommodate any changes in priorities.

The strategy is based irrelevant of funding levels, and therefore, significant changes to the strategy will not need to be made if major changes in available budget occur.