

Highway Asset Management Policy and Strategy 2023 - 2025



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1. Foreword

The Highway network in Brighton and Hove is the City's single most valuable publicly owned asset. With the Highway network being used daily by residents, businesses, visitors and tourists it provides an ongoing and vital contribution in creating a city of growth and opportunity whilst meeting the economic, social and environment needs of our community.

The Policy and Strategy that are presented below highlights how the City Council will deliver the Highway service to support the delivery of the Brighton and Hove City Council Plan and ensure our purpose and values are supported.

The importance of asset management has been reinforced by central government who have asked authorities to assess their progress to the implementation of good practice asset management and have linked this performance to funding incentives. This is a driver for continual improvements to asset management within the City as this approach over the long term leads to the delivery of better services for our residents.

The City Council is committed to following an asset management approach with regards to the Highway service to ensure that not only are we getting the best value for money possible, but also to ensure that public money is used in the most efficient and effective way possible.

2. Introduction

2.1 The Importance of Highway Infrastructure to Brighton and Hove

The Highway infrastructure within Brighton and Hove City Council is critically important to the ongoing economic growth and development of the City. The Highway network is the most valuable publicly owned asset managed by Brighton and Hove City Council. Its total replacement cost is estimated at over £4 billion and therefore an asset managed approach is essential.

2.2 Why a Highway Asset Management Approach?

Asset Management is a strategic approach taken by an organisation to realise the value from its assets. The City Council recognises that in taking an asset management approach to our Highway maintenance, we will not only maximise value for money, but this also supports informed and robust decision making. This approach will also support the City's ambition to become Carbon Neutral by 2030.

2.3 Scope

Brighton & Hove City Council is responsible for maintaining 624km of highway road network with 1026km of pavements. This document covers the following infrastructure assets associated with the highway network:

- Carriageway and footway surfaces
- Surface water drainage infrastructure associated with highways
- Bridges, coast defence structures, cliffs and other highway retaining walls and subways
- Street lighting and illuminated highway signs
- Traffic Control and Intelligent Transport Systems (ITS)
- Vehicle Restraint Systems (VRS)
- Bus stops and shelters
- Parking infrastructure including signs, lines and pay and display machines
- Cycle parking and covered cycle parking
- EV Charging points
- Non-illuminated highway signs and posts
- Line markings and road studs
- Public Rights of Way
- other street furniture

2.4 Highway Asset Management Policy

The City Councils Highway Asset Management Policy sets out the high-level principles by which the City Council will maintain the Highway network to ensure this approach aligns with the City Council Plan 2020 - 2023.

2.5 Highway Asset Management Strategy

This Highway Asset Management Strategy sets out how the Highway Asset Management Policy will be delivered within the City. The Strategy has been informed by the asset management framework promoted by the Highway Maintenance Efficiency Programme.

2.6 Legislative Requirements

The Council as a Highway Authority has a duty to maintain its highways under Section 41 of the Highways Act 1980. The same Act, in Section 58, grants a 'special defence against a highway authority for damages for non-repair of the highway' if it can demonstrate that it has taken reasonable care to ensure that the highway was not dangerous having regard to:

- The character of the highway and the traffic which was reasonably expected to use it;
- The standard of maintenance appropriate for a highway of that character and used by such traffic;
- The state of repair in which a reasonable person would have expected to find the highway; Whether the Authority knew or could reasonably have been expected to know that the condition of the highway was likely to cause danger to users; and
- Whether warning notices were displayed when immediate repair could not reasonably be expected.

This duty has been further clarified by case law. The law does not require a highway authority to maintain the highway as new and free from any defects, because this is not possible both practically and in terms of affordability. However, case law has set out certain expectations about maintenance and repair, particularly for roads, pavements and cycleways.

3. Highway Asset Management Policy

3.1 Policy Statement

Effective asset management will be at the heart of the Council's approach to maintaining Brighton & Hove's highway infrastructure and will reflect the core principles within the City Council Plan, namely:

A fairer City, a sustainable future

- **city to call home:** By focusing on improving the real-world outcomes of our services and the condition of our highways for the people who use them and those who live and work in them.
- **city working for all:** By considering how the overall condition of our highways and our approach to maintenance affects people with different personal circumstances and by recognising the important role that our highways play in enabling people to live happy and independent lives.
- **stronger city:** By using quality data to plan so that we meet the needs of the present without passing on unaffordable costs and environmental impacts to future generations.
- **growing and learning city:** By using the best evidence locally and nationally to drive our decisions on investment in our highway infrastructure and demonstrate value for money and carbon reduction. In doing so we will encourage creativity and alternative approaches to find solutions to the challenges that we face.
- **sustainable city:** By applying a whole lifecycle approach to asset management we can ensure that we maximise the life of our assets and therefore reduce the need for carbon intensive reactive maintenance and reduce the need for new materials.
- **healthy and caring city:** By supporting active travel through the provision of well-maintained infrastructure that is safe to use and accessible to all.

We will also continue to fulfil our obligations set out in legislation and have regard to national guidance and Codes of Practice in determining our approach to highway asset management.

3.2 Policy Principles

1. Our priority is to minimise risks to the safety of people using Brighton and Hove's highway network or who live and work nearby.
2. We recognise that our aspirations for the economy, community safety and resilience, health and well-being and environmental sustainability are dependent on the maintenance of a highway network that is resilient to major risks such as extreme weather events. We will prioritise routine and preventative maintenance operations on key routes (the 'Resilient Network') that enable us to reduce these risks over the long term.
3. Highway assets have long service lives and decisions that we make now about how we maintain these will affect the economic, environment and social well-being of future generations. We will adopt the principle that decisions on budgets for highway maintenance must not result in unaffordable costs or environmental impacts being passed on to future generations. This principle will reflect our UN Biosphere Reserve status.
4. We recognise that a well-maintained public realm can underpin our aspirations to attract inward investment, quality housing and sustainable transport. We will adopt a holistic approach to planning for highway maintenance alongside new infrastructure proposals to ensure budgets are targeted to achieve the greatest benefit for residents, businesses and visitors to Brighton and Hove.
5. We will support our objective for a sustainable economy by adopting a long-term approach to maintenance planning in order to minimise disruption to traffic, residents and businesses over the whole life of our highway infrastructure. We will also develop medium term (3-5 year) programmes of work that enable us to co-ordinate works in a way that will minimise disruption to traffic.
6. We will select long term maintenance investment options on the basis of evidence that they will deliver high value for money and carbon reduction for the Council and residents and businesses in Brighton and Hove. We will maintain accountability in developing our programmes of work by regularly reviewing and publishing the criteria for prioritising and selecting scheme proposals.

7. We will monitor maintenance backlogs and shortfalls in long term budgets for maintenance and manage the risks arising through the corporate risk management framework.
8. We will listen to the views of our residents and businesses when considering the allocation of transport budgets for maintenance and provide feedback to demonstrate how we have responded to those views.
9. We will continue to develop relations with our local contractors and the SE7 Highways Alliance to draw on their expertise and Research & Development in identifying new solutions that will reduce whole life costs, consumption of primary raw materials and other environmental impacts of our highway assets. We will also disseminate our own innovation and best practice through other Local Authority alliances.
10. We will regularly review our approach to asset management for each of our asset groups to ensure it aligns with the latest priorities and actions set out in other key documents including the City Council Plan, the Circular Economy Action Plan, the Local Cycling and Walking Implementation Plan, the emerging Local Transport Plan 5, the emerging Accessibility Strategy and the 2030 Carbon Neutral Programme.
11. We will apply the reduce, reuse, recycle principal to each of our asset groups with a focus on assessing whole life cost, exploring innovation and will focus on extending the life of our existing assets by reinstating our preventative maintenance programme for footways, carriageways and other street furniture, subject to available funding.
12. We will work in collaboration with other teams and organisations to maximise value for money through shared resources to maximise opportunities to support safe active and accessible travel around our City.
13. We will establish all necessary protocols to ensure that our asset information and systems are fit for the purposes of supporting the principles listed above.

3.3 Roles and Responsibilities

Highway Asset Management principles and methodologies will only be successful if key decision makers, such as Elected Members and those making use of the service/network, are on board and are able to visualise the long-term benefits and savings to be made from this approach.

Role	Responsibility
Elected Members	Ensure their behaviour is consistent with the principles of this policy and have a central role to play in ensuring that they are integral to the local authority's aims for Highway Asset Management
Corporate Directors	to be proactive in the promotion of Highway Asset Management
Service Directors	to maintain an overview to ensure effective integration of the principles of Highway Asset Management within their service plans
Managers	to identify appropriate training needs and provide training opportunities
All Staff	to take responsibility and be accountable for their own behaviour

4. Asset Management Framework

The City Council have developed our own asset management framework based on the recommendations within the Highways Maintenance Efficiency Programme (HMEP) Infrastructure Asset Management Guidance. The framework includes all asset management activities and processes that are necessary to develop, document, implement and continually improve.

4.1 Context

This highlights the context for Highways asset management within the City Council. The context includes a variety of factors that need to be considered when understanding the City Council's approach for our Highway service. This includes both national and local transport policies, expectation from stakeholders and legal or financial constraints.

4.1.1 *Sustainable Travel*

Brighton and Hove has a 150km network of aging concrete roads. Whilst this network has served the city well over the last 70 years, it is now reaching the end of its serviceable life which is impacting on the viability of bus services in areas such as Bevendean, Coldean and Moulsecoomb. These areas have particularly high bus usage levels, which is demonstrated by the fact that bus usage in these areas has returned to pre-covid levels, unlike other areas of the City and across the UK. If we are to support sustainable travel in these areas then further long-term investment is needed.

4.1.2 *Active and Accessible Travel*

The Council has committed to supporting active and accessible travel through improved infrastructure as part of the City Council Plan, Local Cycling and Walking Infrastructure Plan and as part of the emerging Local Transport Plan 5 and emerging Accessibility Strategy. Key barriers to accessible movement on foot and on wheels include the condition of the footway as well as the choice of material. Slabs can be easily damaged by pavement parking, heavy loading activities and tree roots which increases the cost of reactive maintenance and increases the whole life carbon costs of the assets. It also increases the risk to users on the footway, particularly those with restricted mobility or sight. Whilst this risk is managed by our extensive Highway Inspection regime, reactive maintenance is not a long-term solution to underfunding.

4.1.3 *Carbon Reduction*

European standards for Carbon Management in Infrastructure (PAS 2080:2016) provides a common framework for all infrastructure sectors on how to manage whole life carbon management when delivering infrastructure assets and programmes of work. This framework sets out a hierarchy for tackling carbon emissions which identifies prevention as the biggest opportunity for radical reduction in carbon emissions within an infrastructure context. In Highway asset management terms, this means that we must either not build in the first place, or once we have, find ways to increase resilience/longevity and drive down the need for maintenance activities.

In recent years, available capital funds for the maintenance of carriageways and footways have been prioritised for surface renewals on the resilient network. This is in keeping with the Council's risk-based approach to asset management as agreed in our 'Strategy for Well-Managed Highway Infrastructure' (approved by ETS in 2021). However, to support the Council's ambition to be Carbon Neutral by 2030 we need a renewed focus on extending the life of all our highway assets. This requires further capital investment to support a

preventative maintenance programme for footways, carriageways and street lighting and further work to develop similar programmes across all our asset groups.

4.2 Planning

The key activities to be delivered by the City Council as part of our Highway asset management planning process include:

Policy	The City Council's published commitment to Highway Asset Management.
Strategy	The City Council's published statement as to how we will deliver against the policy which includes implementation of the framework, the strategy for each of the major assets and the council's commitment to continuous improvement.
Performance	The levels of service to be provided by the City Council and how performance will be measured and reported.
Data	The City Council's approach to Highway asset data and information management.
Lifecycle Planning	The City Council's lifecycle plans for all major Highway asset groups, including expected future performance based on different investment scenarios and desired levels of service which will be used to inform decisions.
Works Programme	The City Council's rolling programme of Highway work to meet the asset management approach set out.

4.3 Enablers

Enablers are a series of supporting activities that support the implementation of the Highway Asset Management Framework.

Leadership & Organisation	The commitment from senior decision makers in adopting the asset management principals throughout their organisation and culture.
Risk Management	Establish an approach to risk, identify risks, evaluate risks and manage risks to mitigate the impact.
Asset Management Systems	The strategy for the use of different asset systems to support the data and information to enable asset management.

Performance Monitoring

Benchmarking and collaborating with other authorities and establishing a culture that thrives for continuous improvement.

4.4 Programme and Service Delivery

The delivery of effective and efficient work programmes for individual asset groups following the asset management approach.

5. Funding

For local authorities there are several different ways that the Highway service is funded.

5.1 Capital Funding

Capital funding can be used for maintenance operations that either restore the performance of an asset or prolong the life in its current state. Capital Funding can come from several sources including allocation of the Council's capital resources by the authority or central government grants.

5.2 Revenue Funding

Revenue spending for Highways services covers reactive and emergency repairs to Highway infrastructure as well as street lighting energy costs, premises and depot costs, staff and salaries, repayments on borrowing and payments against third party claims. More

specifically, revenue budgets also cover safety inspections which are vital to the Council's management of risk and defence against third party claims.

5.3 Local Growth Funding

The Local Growth Fund is government funding awarded to Local Enterprise Partnerships (LEPs) for projects that benefit the local area and economy. The City Council has received funding for several projects within transport which include:

- Upgrade and enhance existing Intelligent Transport Systems infrastructure
- Valley Gardens Development
- Sustainable Transport Package – Brighton Bike Share

All these projects will play a vital role to the local growth of the economy, will enhance the local area and offer the City's residents an improved journey throughout the city.

5.4 Department for Transport Funding

In October 2021, the Government announced a further £2.7 billion was being made available between 2022/23 to 2025/26 for local highways maintenance capital funding. This includes the remainder of the pothole funding package announced in the 2020 budget.

1. Local Highways Maintenance Funding – Needs Element

This funding is allocated based on a formula using data provided by the local authority. The Council currently receives £1.455m/year from this fund.

2. Local Highways Maintenance Incentive/Efficiency Element Funding

This scheme aims to reward councils who demonstrate, through self-assessment, that they are delivering value for money across their Highway service by implement asset management principles. The Council currently receives £364k/year from this fund.

3. Pothole Action Fund

This programme funds the repair of potholes as well as the prevention of potholes through surface renewals within the local authority. This is again allocated based on a formula shared by local authorities. The Council currently receives £1.455m/year from this fund.

4. Local Highways Maintenance Challenge Fund

This fund enables local authorities to bid for major maintenance projects that are otherwise difficult to fund through the normal budgets they receive. In recent years the Council has received £8.9m towards the restoration of Shelter Hall and £1.5m towards the upcoming improvements to Western Road.

6. Strategy for Main Highway Asset Groups

6.1 Introduction

This section summaries the existing Highway assets maintained by the City Council, with its condition and a summary of the strategy that is be used for each asset type in the future. It is critical to understand the current state of the asset and the level of service required to plan for successful delivery of each asset strategy.

6.2 Highway Asset

Table 1 shows a summary of the Highway assets together with a summary of its current condition.

Item	Detail	Condition
Carriageway	614km	The current need for maintenance is: 9% - Principal Network 4% - Non-Principal Network 16% - Unclassified Network
Footways and Cycleways	976km Footway 49km Cycleway	
Structures	66 Bridges 93 Retaining Wall	At present the Bridge Condition Stock Indicator rates the average condition of Brighton bridge stock at 87 and the average for retaining walls is 83.
Drainage	22,782 gullies 4971 soakaways	During the last inspection 88% of the gullies were defect free.
Street Lighting	20,000 street lights 6,000 lit signs and bollards	The current condition of the street lighting stock is as follows: 54% Green (Good condition) 39% Amber (Fair condition) 7% Red (urgent upgrade or replacement)

Item	Detail	Condition
Traffic Signals	1,734 Traffic Signal poles 1,635 Traffic Signal lanterns 1,572 Ped crossing lanterns 71 cycle signal lanterns 113 CCTV cameras	By the end of the 2022/23 refurbishment programme, 6% of stock will be functional but beyond its useful economic life (20yrs) and a further 4% will require urgent upgrade (25yrs+)
EV Charging	230 lamp post chargers 101 fast charger bays 18 rapid charger bays	These assets are relatively new and therefore are in good condition.
Road markings, signs and street furniture	752km of road markings 33,113 Signs 184 Real-time information signs 1,499 Bus stops/shelters 6,240 Street name plates 15,859 Safety bollards 1445 Directional bollards 2,023 Cycle parking stands 71 Bike hangers 11,886m of pedestrian guard rail 4,524m of vehicle safety barriers 750 pay and display machines	Condition is not currently measured for all of these assets however pedestrian guard rails, bollards, vehicle safety barriers, road markings and signs are maintained to the safety standard set out in the Highway Maintenance Safety Policy.

Table 1 – Highway Assets and Condition Summary

6.2 Highway Asset Hierarchy

As per the Well-managed Highways Code of Practice, a network hierarchy should be defined for all elements of the Highway network. Table 2 highlights the hierarchy for the carriageway and footway which has been reviewed in 2022. This hierarchy is the foundation of a risk-based maintenance strategy and reflects the whole Highway network and its needs, priorities and the use of infrastructure.

Carriageway Category	Category Description	BHCC Description
2	<i>Major Urban and Inter-Primary Links</i>	<i>Routes linking urban centres to the strategic network with limited frontage access.</i>
3a	<i>Most classified B and C roads and unclassified bus route</i>	<i>Include all bus routes, have 20/30 mph speed limits and high/ medium levels of pedestrian activity with some crossing facilities.</i>
4a	<i>Link roads with frequent junctions</i>	<i>Residential Link Roads</i>
4b	<i>Local access roads</i>	<i>Local Access Traffic</i>

Footway Category	Category Description	BHCC Description
1	<i>Primary Walking Route</i>	<i>Busy urban shopping and business areas and main pedestrian routes.</i>
2	<i>Secondary Walking Route</i>	<i>Medium usage routes through local areas feeding into primary routes, local shopping areas.</i>
3	<i>Link Footway</i>	<i>Linking local access footways through urban areas.</i>
4	<i>Local Access Footway</i>	<i>Footways associated with low usage, short estate roads to link routes and cul-de-sacs.</i>

Table 2 – Highway Hierarchy

7. Carriageway

Brighton & Hove is a busy, compact city with the highest number of bus users outside of London. In terms of quantity, carriageway surfaces are the largest physical asset managed by the Council, and therefore have the highest value. For this reason, changes in the condition of carriageway surfaces across the network can lead to significant and long-term financial and environmental consequences for the Council.

The Council maintains 624km of carriageway across the City made up mostly of unclassified local roads. This network also includes 150km of aging concrete roads that are reaching the end of their serviceable life and therefore will require considerable investment within the next 5 years.

The condition of the carriageway is measured on an annual basis using condition surveys that are then reported to the Department for Transport. In 2021, 16% of the unclassified network was identified as requiring maintenance compared to the 9% for the principal network and just 4% for the non-principal network.

Our annual condition data is used to predict maintenance backlogs as well as future funding requirements. It is also used to generate our forward works programmes. Alongside this data we also consider condition reports generated by our Highway Inspectors as well as feedback from internal teams, the public and elected members.

The latest modelling indicates that reduced funding over decades has resulted in a carriageway maintenance backlog of approximately £75m. If budgets remain unchanged going forward then it is predicted that this could double to £150m within the next 7 years.

To support the Council's ambition to be Carbon Neutral by 2030 we need a renewed focus on extending the life of all our highway assets. This requires further capital investment to reduce the maintenance backlog and to support a preventative maintenance programme for carriageways.

Short-term desired outcomes (current year):

To develop a long-term funded programme that includes both preventative and planned maintenance. This will ensure we maximise the lifespan of all our carriageway assets, reduce our carbon footprint and provide value for money.

Medium-term desired outcomes (2-5 years):

To secure the required capital funding to maintain the carriageway to a steady state condition across the city.

Long-term desired outcomes (5-10 years):

To maintain the carriageway to a steady state condition level through delivering an effective asset management approach to highway maintenance.

8. Footways and Cycleways

Footways and cycleways are key assets that support access and mobility for people in the City. By ensuring that the footways and cycleways are in a safe and serviceable condition it encourages a method of transport alternative to a car, especially as much of the City is a dense, urban area.

The City Council is responsible for maintaining 976km of footway and 49km of cycleways. Like the carriageway, footways and cycleways are assessed by condition surveys from which the annual programmes of maintenance are developed. These surveys are supplemented with condition reports that are generated by our Highway Inspectors as part of their routine inspections of the highway.

The City Council has historically followed a worst first approach to footways, concentrating on those with high footfall in the urban area. This is aligned with the Council's risk-based

approach however with the damage being caused by pavement parking, tree roots, and more recently the increase in weeds, our footways are deteriorating faster than anticipated.

By working in collaboration with other teams across the Council and externally we will look for opportunities to share resources to deliver additional schemes beyond the principal footway network to align with priority areas set out within the Local Cycling and Walking Implementation Plan. This will make our footways more accessible for all road users and support active and accessible travel within local areas as well as the city centre.

Further investment will be required to support an enhanced planned and preventative maintenance programme going forward. We will take a full lifecycle approach to the management of our footway and cycleway assets to ensure that we use products that will be resilient and long-lasting thereby lengthening the renewal cycle and reducing the carbon and financial cost of on-going reactive maintenance.

Short-term desired outcomes (current year):

To develop a comprehensive inventory of both footways and cycleways and review the on-going approach to the collection of condition data. From this we will identify priority walking and cycling routes and areas for planned maintenance and align with these the priorities identified within the Local Cycling and Walking Implementation Plan. We will also seek additional funding to support this enhanced programme.

Medium-term desired outcomes (2-5 years):

Prioritise maintenance on the priority footway network and improve the condition of the identified formal and informal cycle network by developing a long-term funded programme that includes both preventative and planned maintenance.

Long-term desired outcomes (5-10 years):

Improve the condition of the priority footway and cycleway network while maintaining a steady state on the secondary network.

9. Structures

There are 159 Highway structures in the City Council's ownership. These include road bridges, seafront arches and many Highways retaining walls, particularly on the seafront.

The City Council's overall approach to management of Highway structures is set out in the Highway Inspection Procedure (2013). This details the types and frequencies of inspection and monitoring that the City Council carries out on different types of structure.

Many of the Highway structures within the city date back to Victoria times and require regular and continued maintenance. Some of these structures have long passed their design life and will require significant investment over the next decade to either replace or substantially repair. The seafront arches, due to the historical and economical importance to the City, have been the focus of significant investment over the last decade. The continued improvements to the arches that are yet to be repaired is required in the short to medium term.

Work on Highway structures requires extensive planning in the medium and long term to minimise disruption to traffic, residents and businesses. For this reason, the City Council has developed a risk-based programme to extend the Sea Front structures with works required over the coming 5-10 years. Programmes are constantly reviewed based on the outcome of inspections and surveys to ensure reactive urgent works are prioritised as required to ensure public safety. A 20-year programme is required more broadly across the City requiring funding of approximately £150-200 million.

The City's coast protection structures defend the Highway network from erosion and encroachment by the sea. Two approved life cycle plans are in place for their long-term management. These are periodically updated in line with Environment Agency guidance.

The City Council has recently completed a major project on the seafront to redevelop former West Street Shelter Hall. This commenced with a £9 million investment award from the Department of Transport's Highways Maintenance Challenge Fund, with a total of approximately £25 million for the project. More recently the Council has secured £4m grant funding from the Environment Agency to deliver the first phase of a 10-year project to improve sea defences along Hove seafront up to Shoreham Port. Improvements will include groyne replacements, sea wall strengthening and shingle recycling.

Short-term desired outcomes (current year):

To improve the asset inventory across all structures including the digitisation of all hard copy information.

Medium-term desired outcomes (2-5 years):

Continue to win external bids for funding.

Long-term desired outcomes (5-10 years):

Continue to win external bids for funding and with this additional funding, see an improvement in structural condition.

10. Drainage

With the growing risk of extreme rainfall events as a result of climate change, the City Council faces growing challenges to mitigate the risk of flooding from surface water run-off from Highways.

We currently have 22,782 gullies and 4971 soakaways that drain surface water from the highway. Most of our gully's discharge into a combined sewer system managed by Southern Water and at times the sewer system is unable cope with the extreme weather events we are experiencing more often due to global warming.

To avoid further overloading this system Brighton and Hove City Council cannot connect additional gullies to it, nor replace existing gullies with bigger capacity gullies, as doing so further increases the risk of sewage discharging on to the public highway at times of exceptional rainfall.

Since there is limited action that can be taken to improve the existing highway drainage system to a point where it will cater for extreme rain fall, the current priority is therefore to supplement cleansing of our existing assets with additional sustainable urban drainage schemes. These schemes, where appropriate, will redirect water away from roads into a series of natural basins from where it can be gradually absorbed into the ground.

To deliver a serviceable and sustainable drainage service into the future the two elements of efficiency and effectiveness must be balanced appropriately to ensure the effective use of limited budgets.

Historically, BHCC's approach to cleansing, repairing and improving highway drainage assets has been predominantly reactive however by improving the quality of the asset data we will move to a risk-based approach across all our drainage assets.

This risk-based approach also follows the Well-managed Highway Infrastructure Code of Practice 2016 and allows the Council to focus maintenance on the high priority assets which may pose a greater risk of flooding and disruption to road users.

Short-term desired outcomes (current year):

To improve the quality of the existing inventory and condition data so that a long-term risk-based programme can be developed across all drainage assets. Deliver an Efficient & Effective Highway Drainage Cleansing Service based on the risk of flooding. Explore innovations in the industry to support the risk-based maintenance of the network of soakaways.

Medium-term desired outcomes (2-5 years):

Continue to build a closer working relationship with key stakeholders and in particular Southern Water with the common aim of reducing the amount of surface water that discharges into their combined sewer. Continue to review and deliver the long-term risk-based programme whilst seeking external funding to deliver more.

Long-term desired outcomes (5-10 years):

To continue to deliver the long-term risk-based approach across all drainage assets.

11. Street Lighting

Street lighting is a critical Highway asset which contributes to public amenity, safety and the night-time economy. The City Council currently maintain approximately:

- 20,000 street lights
- 6,000 lit signs and bollards

*includes 4,750 cast iron columns including 250 columns identified as being of historic and architectural significance.

The overall condition of the City Council's street lighting asset is monitored in accordance with guidance from the ILP Institute of Lighting Professionals and a well-designed risk based cyclical maintenance programme prevents the performance falling below the designed level. Collecting visual data on all assets to map degradation following GN22 guidance from the ILP informing future maintenance strategies and anticipate required funding.

The City Council has borrowed £6.8 million from the Public Works Loan Board to replace older technology with LED lanterns. This investment into our Street Lighting asset has

substantially reduced the Councils energy costs and carbon emissions while providing service improvements for all service users.

The City Council has allocated £1.4million from the Carbon Neutral Fund to support the delivery of a Seafront Heritage Lighting Restoration Project. Working with Historic England this project will restore the historic grade II listed cast iron street lighting columns along Brighton's Seafront to preserve the cities heritage and expedite the replacement of existing lanterns with new LED variants.

Short-term desired outcomes (current year).

To complete the installation of LED lanterns across the city and realise the energy and carbon savings. To begin work on the restoration of the historic seafront columns working with Historic England. Adoption of a new asset management system.

Medium-term desired outcomes (2-5 years).

To see reduced energy savings and continue to investigate all opportunities to make additional energy and carbon efficiencies. Undertake and complete the restoration of historic seafront columns.

Long-term desired outcomes (5-10 years).

Utilise information gathered to develop a long-term strategy for the maintenance of all street lighting assets.

12. Traffic Signals

Where deemed necessary under section 122 of the Road Traffic Regulation Act 1984 and Part 2 of the Traffic Management Act 2004, the traffic signals need to be maintained to operate safely and correctly. Additionally, signals can be a useful tool in the promotion of walking, cycling and bus usage.

The city council currently maintain and operate 78 signal junctions and 101 stand-alone signal crossings. In combination there are a total of 1,734 signal poles holding 1,635 vehicle lanterns, 1,572 pedestrian lanterns and 71 cycle lanterns. All the junctions can operate at a minimum level of VA with many having MOVA and/or SCOOT control.

The city's traffic signal sites are remotely monitored for faults, inspected at least twice annually and subject to routine maintenance and running repairs. Generally the useful expected life of a traffic signal site is around 20 years, and they are considered to be at risk after 25 years. Ideally sites will be refurbished before they reach 'at risk' and a

refurbishment programme is in place that prioritises sites based on a combination of age, number of reported faults and the result of the annual periodic inspection. When possible refurbishments are carried out in coordination with other schemes underway in the city.

Short-term desired outcomes (current year):

Complete this years maintenance refurbishment programme (9 sites). Move 16 sites currently on RMS/Stratos to UTC monitoring and control. Reduce carbon emissions by use of LED lanterns. Complete the annual inspection and validation regime.

Medium-term desired outcomes (2-5 years):

Complete the replacement of final incandescent lamps with LED's preferably in conjunction with ELV. Continue to trial the use of Plus+. Replace existing high level cycle phase lanterns with low level RAG's. Consolidate site communications onto UTC for monitoring and control. Investigate methods of more reliable (non-loop) detection for all traffic and in particular the detection of cyclists in amongst other traffic. Continue validation program for MOVA/SCOOT/UTC control.

Long-term desired outcomes (5-10 years):

Achieve a balance in the maintenance programme where signal equipment is used for the expected life period but where no more sites reach the 'at risk' category than can be refurbished in the annual programme (currently would need to be 8-10 sites/year).

13. Road Markings, Signs and Street Furniture

Road markings, signs and street furniture are important assets to a local area, not only ensuring road safety, but also offering a pleasant public realm environment. The City Council's overall Public Realm Strategy objective is to ensure the City's streets and public spaces are designed to bring maximum benefit to all residents.

The City Council has invested to gain a greater understanding of the inventory across the Highway network for all road markings, signs and street furniture. This needs to be explored further to ensure that our asset data accurately reflects all assets and that the records are expanded to include new assets such as Cycle Hangers and EV charging points as this new infrastructure is rolled out. Asset data from other services such as Street

Trees is also being explored in order to create a one stop shop for all asset data associated with the public highway.

In line with the Well-Managed Highway Infrastructure Code of Practice the City Council are taking the opportunity during schemes and projects to declutter the Highway network of street furniture where it is redundant. With accurate data, this approach could be accelerated by identifying redundant assets for removal as part of specific decluttering projects, subject to suitable funding being identified.

Short-term desired outcomes (current year):

To continue to maintain signing and lining regimes which are required for enforcement, safety and efficiency purposes. To carry out a gap analysis of missing asset and condition data and to seek funding to address missing data. To carry out a lifecycle review of key street furniture, subject to funding, with a view to establishing a cyclical preventative maintenance programme for key assets e.g. cyclical painting of cast iron assets on a priority basis.

Medium-term desired outcomes (2-5 year):

Continue to declutter the network in line with the Code of Practice whilst maintaining those that are critical to the network. Deliver a cyclical programme of preventative maintenance for key street furniture, subject to funding.

Long-term desired outcomes (5-10 years):

To have a network with no redundant items cluttering the Highway network and a reduced palette of approved sustainable materials with known lifecycles.

14. Highway Asset Data and Information

14.1 Highway Data and Information Strategy

The City Council understands that the data we hold is as important an asset as any other and therefore having good quality data allows us to make informed robust strategic decisions for Highway asset maintenance. Our Data and Information Management Strategy therefore forms an important part of our Asset Management Framework and is currently being reviewed and updated to reflect the contents of this document.

14.2 Highway Data and Information Systems

Asset management systems within the City Council should be sustainable and able to support the information required to enable asset management to take place. Improved

asset management systems feature strongly in the City Council's Asset Management Framework.

Short-term desired outcomes (current year):

To implement a new map-based Asset Management System that manages highway and street lighting works ordering as well as to manage our asset inventory. This will improve the quality of our asset data so that we can make informed future funding decisions across all asset groups.

Medium-term desired outcomes (2-5 years):

To update our data and information management strategy to reflect the new system to ensure that our asset data is both accurate and maintained to a high quality. To share this data via our corporate GIS with other teams as required to improve coordination and transparency across the Council.

Long-term desired outcomes (5-10 years):

To use asset management systems to support continued carbon reduction across our service and to provide value for money across all our asset groups.

15. Best Practice and Performance Monitoring

The City Council is committed to the ongoing development of good practice and continuous improvement. Some examples of activities that demonstrate this include:

- Membership of the Southeast 7 Alliance
- Membership of the CIPFA HAMP Network
- Attendance at a variety of local and regional events
- Membership to NHT Survey
- Membership of LCRIG

15.1 Performance Monitoring

It is critical as the City Council continues our asset management journey that we measure our performance, not only to ensure what that we are doing is working but to also continuously seek improvement. Performance objectives have been identified in the performance management framework. These objectives will ensure the City Council continues to maintain our Highway asset in the most efficient manner.

In addition, the City Council recently procured a new NEC Highways Framework Contract for the provision of highway construction services. The framework has embedded Key

Performance Indicators relating to Carbon Reduction, Innovation, Social Value and Collaboration. These KPIs will be monitored monthly and offer financial incentives for compliance.

15.2 Strategy Review

The Highway Asset Management Policy and Strategy will be reviewed annually, updated and re-published every 2 years.