HIGHWAY ASSET MANAGEMENT PLAN (HAMP)

ANNUAL UPDATE

2023/2024

Contents

1. Foreword

By Councillor John Shuttleworth, Portfolio Holder for Rural Communities and Highways.

The highway network is the Council's largest and most valuable tangible asset and is used daily by nearly all County Durham residents and businesses together with many visitors. It is fundamental to economic and social activity in County Durham.

Our Highway Asset Management Plan (HAMP) has been created to align ourselves with the other North East Authorities, that will make up the North East Combined Authority (NECA). It looks at the quantity and quality of our existing highway infrastructure to determine how best to efficiently manage them now and in the future.

The Council is committed to applying resources that are used efficiently and cost effectively in the management of our highway assets. We appreciate that almost every resident in County Durham uses our highway as a pedestrian, cyclist, passenger or driver/rider. Therefore, having a safe well managed highway is important as our users go about their everyday lives.

I appreciate that there are areas that require additional investment to improve the overall condition. As a Cabinet Member for Rural Communities and Highways, it is my ambition to assist in identifying additional investment opportunities to help deliver safe and sustainable infrastructure projects.

This document also demonstrates that Durham County Council is continuing in its commitment to investing in maintaining the highway infrastructure. I commend the work being undertaken by our highway teams in delivering a high-quality service for the benefit of all highway users.

2. Introduction

The adopted highway is Durham County Council's most valuable asset, currently valued at £10 billion. The Highways Asset Management Plan (HAMP) sets out the long-term plan for managing the highway network, utilising good highway asset management principals so that its condition is maximised for the available budget.

The HAMP comprises of:

- The Policy (which sets out the principles of the HAMP) **insert link**
- The Annual Update (which is updated each financial year)

This annual update for financial year 2023-2024 outlines the condition of the network in line with Department for Transport (DfT) guidance which is benchmarked against councils nationally and will confirm the in-year investment and asset condition.

Investment into the Council's highway network is funded from Central Government via the Local Transport Plan (LTP) and from Durham County Council (DCC) via general capital settlements and additional capital funding for specific projects.

3. Budgets

The in-year budget allocation via LTP is insufficient to maintain the highway network in a safe and serviceable condition and therefore additional funding from DCC's capital budget supports this settlement.

It should be noted that the LTP settlements remain steady and do not include any inflationary uplift which is particularly problematic given the high levels of inflation across the highways industry over the last few years following the pandemic.

The table below confirms both the LTP and DCC budget allocations for financial year 2023/2024, some DCC funding spans financial years:

Funding Stream	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**
	£ millions					
Local Transport Plan	9,564	9,564	9,564	6,596	6,596	6,596
Incentive Fund	2,008	1,992	1,992	1,649	1,649	1,649
Pothole Fund	1,297	662	8,448	6,596	6,596	6,596
Additional Highway Maintenance Fund	5,269	-	-	-	-	-
DCC Capital Funding	7,486	8,864	6,431	9,100	13,410	20,156
Total	**25,624**	**21,082**	**26,435**	**23,941**	**28,251**	**34,997**

Strategic Highways Capital Budget - 2023/24	
Budget Allocation - LTP Confirmed	
LTP Capital Settlement	Total
LTP Settlement (Needs Based Fund)	6,596,000
LTP Settlement (Pothole Fund)	6,596,000
LTP Settlement (Incentive Fund @ Level 3 rating)	1,649,000
In Year Sub-Total LTP Capital Allocation	**14,841,000**
LTP Settlement (Additional Pothole Fund)	1,866,000
In Year Total LTP Capital Allocation	**16,707,000**
MOWG Capital Settlement	Total
DCC MOWG (Highway Maintenance Funding)	4,500,000
DCC MOWG (Flood Prevention)	1,000,000
DCC MOWG (Street Lighting)	1,000,000
In Year Total MOWG Capital Allocation	**6,500,000**
Members Priorities Capital Settlement	Total
DCC MOWG (Unclassified Roads Fund)	2,500,000
DCC MOWG (Rural Linked Footways)	100,000
DCC MOWG (PROW)	250,000
DCC MOWG (A690 Landslip)	15,000,000
DCC MOWG (The Weirs, Durham City)	1,410,000
DCC MOWG (Framwellgate Peth)	1,000,000
In Year Total Members Priorities Capital Allocation	**20,260,000**
In Year Total Capital Allocation	**43,467,000**

LTP settlements have remained static for a number of years and as a consequence of hyperinflation the actual benefit from investment has reduced. As an example, in some areas of construction, inflation has increased by up to 40%, this has the net effect of reducing the amount of work delivered on the ground.

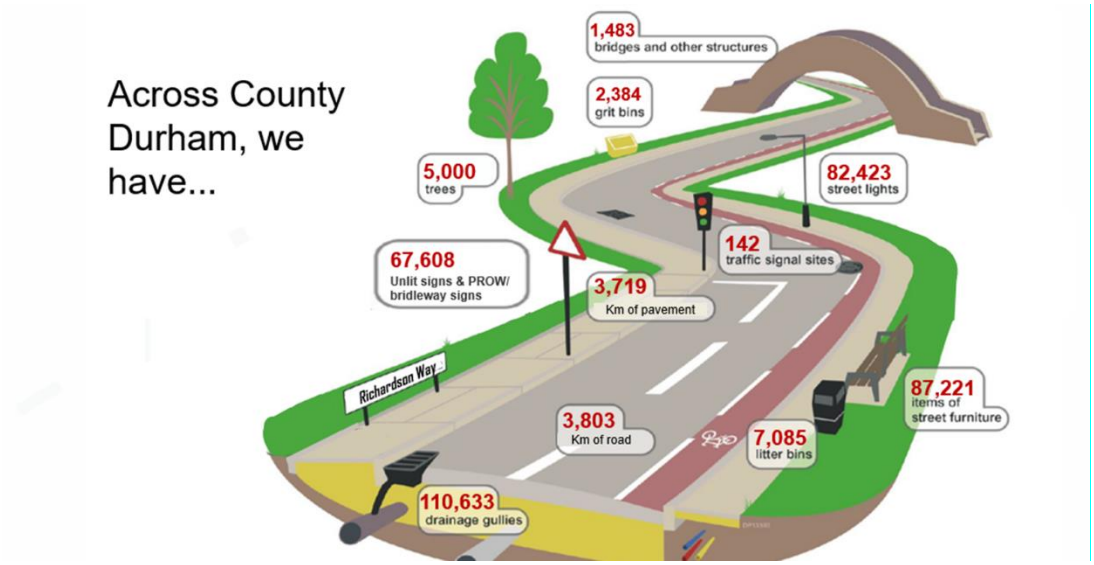
COMMODITY/PRODUCT	% INCREASE	Latest Notification received
ROAD MARKINGS	10.00	Dec-21
STEEL AND ASSOCIATED PRODUCTS FROM NAL	15.00	Nov-21
SIGN POSTS FROM MALLATITE	67.50	Apr-21
COATED AGGREGATES	15.00	Dec-21
VEHICLE RESTRAINT SYSTEMS	40.00	Aug-21
REBAR/REINFORCEMENT MESH	35.00	Jun-21
PRECAST CONCRETE PRODUCTS	7.00	Jun-21
TIMBER	33.00	May-21
PAINT/POWDER COATING	7.50	Jun-21
STAINLESS STEEL	7.50	Jun-21
ROAD TRAFFIC SIGNS LIMELIGHT	9.00	Jan-22
BITUMENS	33.00	Apr-22

4. Asset Inventory

The highway infrastructure asset inventory is a database of the individual assets that make up Durham County Councils' highway network. It is an essential aspect of asset management

to know what assets we have, where they are, and what condition they are in, so they can be inspected, surveyed and maintained to appropriate service levels.

The adopted highway is used every day by nearly all County Durham residents and businesses together with many visitors. The highway network is therefore fundamental to economic and social activity in County Durham.



The table below summarises the inventory, as of 31st March 2024.

Asset	Unit	Total
Carriageway		
A Class	Km	417
B Class	Km	406
C Class	Km	695
Unclassified	Km	2325
Sub-Total	Km	**3843**
Footway		
Sub-Total	Km	**3,820**
Drainage		
Gullies	Number	**110,633**
Structures		
Road bridges	Number	487
Footbridges	Number	51
Retaining Walls	Number	270
Culverts	Number	1621
Cattle Grids	Number	91
Stepping Stones	Sets	8
Sub-total	Number	**2,528**

Street lighting		
Columns/ Lanterns	Number	82,423
Lit Signs	Number	5,737
Sub-total	Number	**88,160**
Public Rights of Way		
Public Footpath	Km	2,914
Public Bridleway	Km	548
Restricted Byway	Km	19
Byway Open to All Traffic	Km	45
Sub-Total	Km	**3,526**

Inventory and condition data for certain low value assets is not considered.

5. Carriageways

Asset

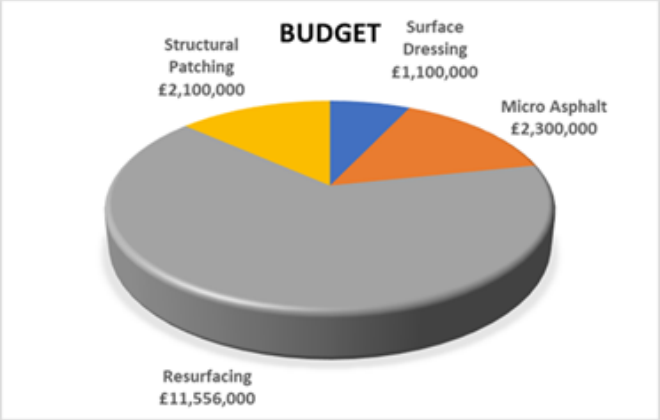
In total there are 3843kms of adopted carriageway across the county, from strategic A class roads to unclassified rural links.

Asset	Unit	Total
Carriageway		
A Class	Km	417
B Class	Km	406
C Class	Km	695
Unclassified	Km	2325
Total	Km	**3843**

Investment

Maintaining the highway network is costly, the works required far exceed the budget available therefore all potential schemes are prioritised taking into consideration a number of factors including condition data, road hierarchy, accident history, Highway Inspector recommendations and Members concerns. Each treatment is determined on good asset management principles of “right treatment at the right time”.

The overall budget for carriageways in 2023/24 is £17.056 million.



Treatment

Several different treatments are utilised to maintain the carriageway infrastructure and a 3-year rolling capital resurfacing programme is developed each financial year.

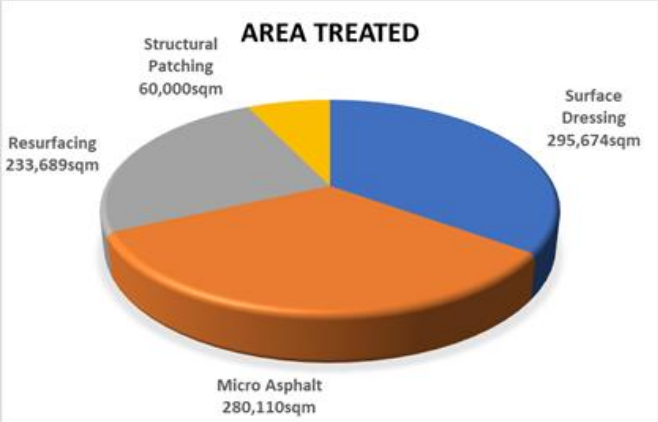
Surface Dressing - Involves spraying bitumen binder on a clean, dry road surface, over which stone chippings are spread, this cost-effective treatment seals the surface to prevent water ingress and extends the life of the existing road. In financial year 2023/24 we completed nearly 300,000 square metres of dressing, an investment of £1.1 million.

SD VID 2.MOV

Micro Asphalt - A preventative maintenance treatment, used to seal the existing road surface, improve the texture and helps eliminate water ingress. It is mostly used in residential areas with slower moving traffic. During financial year 2023/24 we completed over 280,000 square metres of micro asphalt, an investment of £2.3 million.

Resurfacing – Removal of the existing road surface and replacement with a new one, usually, this treatment is the most expensive and is utilised when the road has come to the end of its serviceable life and no longer economical to repair. During 2023/24 financial year we completed approximately 234,000 square metres, an investment of £11.556 million.

Structural patching – Localised areas of defective carriageway are removed and replaced with new bituminous material. During financial year 2023/24 we completed 60,000 square metres of structural patching, an investment of £2.1 million.



Condition

The condition of our carriageway infrastructure is broken down into 4 bands, green, low amber, high amber and red. These are described in detail as follows:

Green – These are the roads that are in 'as new' condition, with no or very small amounts of minor defects identified during the annual condition surveys.

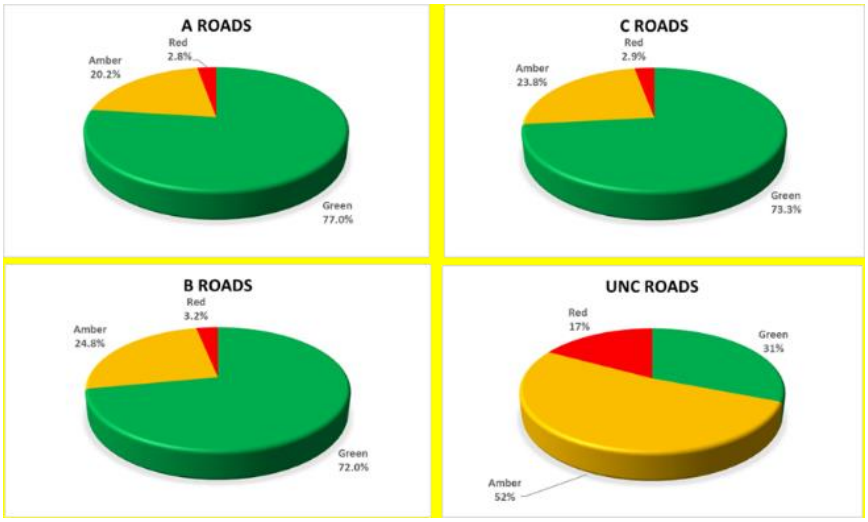
Low Amber – These are the roads where small quantities of minor defects have been identified. These assets do not require any planned maintenance, but they will be monitored through safety inspections.

High Amber – These are the roads where large quantities of minor defects and small amounts of major defects have been identified. These assets require planned preventative maintenance, such as surface dressing or micro asphalt, to prolong the assets life and deliver acceptable service levels.

Red – These are the roads where large quantities of major defects have been identified. These assets require planned replacement, such as resurfacing to prolong the assets life and deliver acceptable service levels.

Regardless of the condition band, all carriageway assets are monitored through our scheduled safety inspections.

The following chart depicts the overall condition of our carriageway assets, with the data correct as of 31st March 2024.



The overall condition of our classified roads is better than the national average and demonstrates the level of investment over previous years. However, as a consequence of unchanged funding and hyperinflation the condition of the classified network has deteriorated slightly but remains better than the national average. Durham's priority has been to increase the condition of our unclassified roads, which are worse than the national average. With focused investment in this area the condition of the unclassified network has improved, this priority will continue into the next financial year.

Performance

The condition of the Council's roads are independently surveyed, and the data is used to calculate a performance indicator figure. The results for the last 5 years are shown below (note: a lower figure is better). The "Target" road percentages are the England and Wales averages for roads needing structural maintenance. This information is taken from the 2023 ALARM survey which complies data from local authority highway departments in England and Wales.

Performance Indicator	Target	2019	2020	2021	2022	2023	2024
A-Roads % where maintenance should be considered	4%	2.8%	3.2%	4.2%	3.7%	2.6%	2.8%
B-Roads % where maintenance should be considered	6%	4.6%	3.3%	3.5%	3.3%	2.7%	3.2%
C-Roads % where maintenance should be considered	6%	3.6%	2.3%	3.4%	3.5%	2.4%	2.9%
Unc-Roads % where maintenance should be considered	15%	25.0%	24.0%	22.0%	25.0%	23.0%	17.0%

The figures above illustrate the percentage of structural maintenance required to improve the road network. The classified road network (A, B and C's) is within target, but the unclassified network requires additional investment.

Additional Investment

The Council supplements Government LTP settlements with additional investment through capital funding, in financial year 2023/24 the following carriageway projects were funded through capital investment:

- Unclassified Road Fund – An additional £8.8 million of investment into the Unclassified network over a 3-year period, in year £2.5 million supported improvements in this area. This investment has reduced the percentage of network that requires improvement from 23% to 17%. This trend is expected to continue in financial year 2024/25 and bring the condition of the Unclassified network in line with the national average.
- A690 Landslip, Durham - £15 million of investment to stabilise the embankment and carriageway. The project spend is profiled across financial years 2023/24, 2024/25 and 2025/26.
- Framwellgate Peth, Durham - £1 million of investment into the reconstruction of the carriageway adjacent to the Milburngate Development to stabilise the existing infrastructure.

Innovation

Net Zero Roads

The Council has continued to support and introduce environmental initiatives to reduce carbon emissions. Working with Rainton Construction our framework surfacing contractor to develop new road surfacing techniques that incorporate plastic and rubber crumb. In year as part of our net zero roads initiative working alongside Rainton Construction and Low Carbon Materials Durham have become the first authority in the UK to use net zero road surfacing within its road resurfacing programme. This new type of asphalt incorporates aggregate designed to lower the carbon footprint, this new material will play a key role in increasing the authorities carbon savings.

https://www.youtube.com/watch?v=YHrM3kDhDpo

Artificial Intelligence (AI)

Highways have introduced Artificial Intelligence (AI) technology into their fleet of Highway Inspectors vehicles, which will assist with defect identification, assessing network condition and ultimately scheme identification and provide a robust defence against third party public liability claims.

6. Footways

Asset

There are 3,820 kms of adopted footways across the county from prestige walking zones, busy urban shopping pedestrian routes and local access footways through urban areas.

Footways are classified into four key areas.

Asset	Unit	Total
Footway		
Total	Km	**3,820**

Investment

Investment into footway capital improvement projects has been paused following the announcement of central governments “digital rollout programme”.

Extensive broadband installation continues to impact on the footway network and until this programme nears completion footway funding has been reallocated to other areas, including the Unclassified network.

Safety critical footway repairs have continued however in the longer-term additional investment will be required when the capital footway maintenance programme is reintroduced.

The overall budget allocation for footways in 2023/24 would have been approximately £3.2 million but because of the digital rollout programme the majority of this budget has been reinvested into improving the carriageway infrastructure.

Safety critical footway repairs have continued to ensure public safety and a programme of footway surface treatment (FST) has been delivered in more rural locations where broadband installations are less likely, an investment of £0.42 million. Once the digital

rollout programme nears completion, footway improvement schemes will be reintroduced utilising existing highway capital budgets.

Treatment

There are several different treatments that are used to maintain our footway infrastructure.

Footpath Reconstruction - Excavate and replace 70mm of bituminous pavement and replace with new, remove existing paving stones/tegular paving and replace with new bituminous pavement to a maximum thickness of 100mm and excavate concrete footpath and replace with bituminous paving to a maximum thickness of 100mm.

Footway Surface Treatment (FST) – FST is a material used to provide a new surface layer to an existing bituminous footway. It contains bitumen emulsion, fine aggregate, cement, and water. It is a surface treatment applied over an existing footway surface.

https://youtube.com/shorts/JMYRPrDMBlc?feature=share

Condition

The condition of our footway infrastructure is broken down into 4 bands, C1, C2, C3 and C4. These are described in detail as follows:

C1 (Green) – These are the footways that are considered to be in 'as new' condition, with no or very small amounts of minor defects identified during the annual condition surveys.

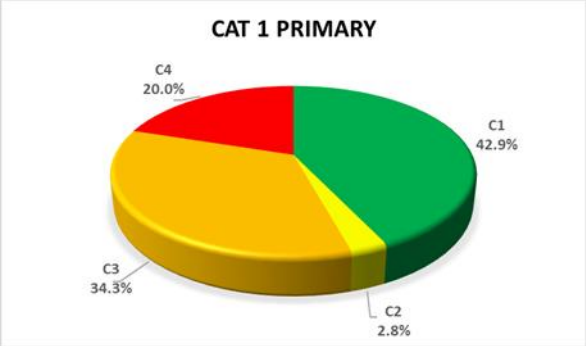
C2 (Low Amber) – These are the footways which are considered to be aesthetically impaired. These assets do not require any planned maintenance, but they will be monitored through safety inspections.

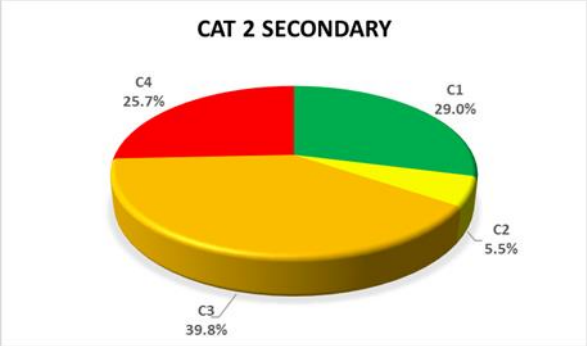
C3 (High Amber) – These are the footways which are considered to be functionally impaired. These assets require planned preventative maintenance, such as FST, to prolong the assets life and deliver acceptable service levels.

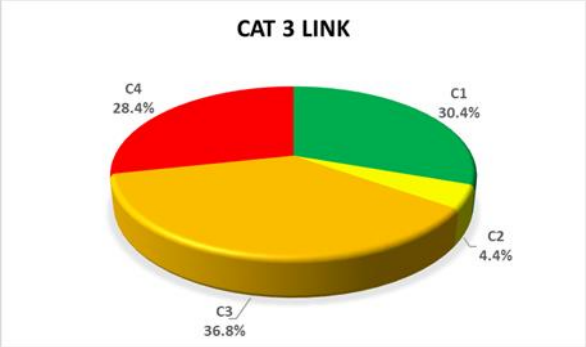
C4 (Red) – These are the footways which are considered to be structurally impaired. These assets require planned structural maintenance, such as resurfacing, to prolong the assets life and deliver acceptable service levels.

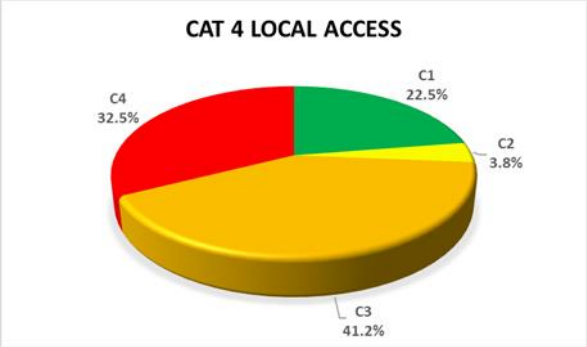
Regardless of the condition band, all footway assets are monitored through our scheduled safety inspections, which ensures the assets are maintained in a safe and serviceable condition.

The following chart depicts the overall condition of our footway infrastructure assets, as of 31st March 2023.









During the digital rollout programme it is not possible to undertake meaningful condition surveys, these will be reintroduced once the install programme is substantially complete.

Performance

The condition of the Council's footways are regularly surveyed, and the data is used to calculate a performance indicator figure. The results for the last 5 years are shown below (note: a lower figure is better). The "Target" footway percentages are the England and Wales averages for footways needing structural maintenance. This information is taken from the 2023 ALARM survey which complies data from local authority highway departments in England and Wales. The ALARM survey does not provide a footway target, therefore a figure of 15% has been set.

Performance Indicator	Target	2019	2020	2021	2022	2023	2024
Footways % where maintenance should be considered	15%	21.5%	20.9%	22.5%	31.0%	Not currently available	Not currently available

The footway condition has continued to deteriorate as a consequence of the digital rollout programme, condition data is not currently being collected and significant investment will be required once the install programme is complete.

Additional Investment

- In 2023/24 additional funding has been invested into rural link footways with an investment of £0.77 million, with over 1.3 miles constructed in year, linking communities and providing walking and cycling opportunities.

Clean and Vibrant Communities

In 2023/24 a programme of clean and protect works continued in Durham City, monthly and quarterly cleanses of the footways in key locations including the Market Place, Old Elvet Bridge, Magdalene Steps and Saddler Street. This investment is vital to ensure the city remains attractive to residents, students and visitors.

This initiative has previously been extended to wider towns and villages on an ad hoc basis to include Barnard Castle, Bishop Auckland, Seaham, Peterlee, Chester le Street, Esh Winning and Ferryhill. As budget becomes available these valuable works will be continued.

7. Structures

Asset

In total there are approximately 1500 highway structures of varying construction and condition across the county. The key priority for investment are the significant number of major road bridges on the strategic network.

Asset	Unit	Total
Structures		
Road bridges	Number	487
Footbridges	Number	51
Retaining Walls	Number	270
Culverts	Number	1621
Cattle Grids	Number	91
Stepping Stones	Sets	8
Total	Number	**2,528**

Investment

Maintaining the structures assets is costly, the works required far exceed the budget available therefore all potential schemes are prioritised taking into consideration a number of factors including bridge condition indicators.

In financial year 2023/24 maintenance works were undertaken on 24 structures, the work included footbridge repairs, refurbishment and replacement, cattlegrids replacements, parapet repairs, subway refurbishment, retaining wall repairs.

The overall budget for structures in 2023/24 is £4.9 million.

Treatment

Within Structures there is a wide variety of road bridges, footbridges, retaining walls, culverts, subways and cattlegrids. Maintenance and replacement of these assets is informed from a series of general and principal inspections (statutory requirement) and the outcomes of these inspections determine the required work activity which includes:

Bridge Replacement - Where a structure is beyond economical repair, informed by general / principal / special inspections and structural assessments, the whole structure is replaced to meet current specifications. In some circumstances the bridge may be demolished and an alternative route provided.

Bridge Refurbishment - Refurbishment projects can vary depending on the condition of the structure, usually the works involved in a full refurbishment are the removal of the existing highway surface, concrete repairs, waterproofing and resurfacing. In some circumstances the existing steel structure will be shot blasted and repainted, where the existing steel is showing signs of deterioration / corrosion, these elements are replaced accordingly.

Parapet Repairs - Where parapets are damaged or have deteriorated appropriate repairs will be undertaken. This can be masonry repairs and repointing, steelwork / timber parapet refurbishment and or replacement as appropriate.

Subways - Subways across the county are generally of concrete construction, repairs generally consist of specialist concrete repairs however the main element of maintenance relates to subway cleaning, repainting and the application of anti-graffiti coatings. It is important in these structures that lighting remains operational and subways remain clean, light and attractive.

Footbridge Redecking - In rural locations timber footbridges are common and require replacement decks, generally through wear and tear, walking boards and timber supports are replaced to ensure public safety. Where concrete footbridges are present the walking surface is generally of a bituminous overlay, resurfacing the footbridge provides the benefits of waterproofing and a safe thoroughfare.

Condition

Structures overall are generally in 'fair' condition, however a number of structures are coming to the "end of their design life".

The condition of the bridge stock is measured by the use of a Bridge Condition Indicator (BCI). This provides a measure of the physical condition of the highway bridge stock.

The BCI scores range from 100 (best possible condition) to 0 (worst possible condition).

BCI Range	Comments
$90 \leq x \leq 100$	Bridge stock is in a very good condition. Very few bridges may be in a moderate to severe condition.
$80 \leq x < 90$	Bridge stock is in a good condition. Some bridges may be in a severe condition. Potential for rapid decrease in condition if sufficient maintenance funding is not provided. Minor to moderate backlog of maintenance work.
$65 \leq x < 80$	Bridge stock is in a fair condition. A number of bridges may be in a severe condition. Maintenance work historically underfunded and there is a moderate to large backlog of maintenance work. Essential work dominates spending.
$40 \leq x < 65$	Bridge stock is in a poor condition. Many bridges may be in a severe condition. Maintenance work historically significantly underfunded and there is a large to very large backlog of maintenance work. A significant number of structures likely to be closed have temporary measures in place or other risk mitigation measures. Essential work dominates spending.
$0 \leq x < 40$	Bridge stock is in very poor condition. Many bridges may be unserviceable or close to it. Historical maintenance work grossly underfunded and a very large maintenance backlog. Only essential maintenance work performed. Many structures likely to be closed have temporary measures in place or other risk mitigation measures. All spend likely to be on essential maintenance.

The BCI scores for Durham's structures assets inform a RAG rated priority list. The assets which are in the greatest need of significant investment in the short to medium term are shown in the table below:

Structure	Status	Budget Estimate Construction	Construction Timescales	RAG Rating
Harelaw Bridge, Frosterley	Significant damage to the central pier following Storm Desmond and Storm Frank in 2015/16, structure remains open	£2.0 million	2024/25+	RED
A68 Witton le Wear New Bridge	Phase 1 - Pier protection required following significant scour of the riverbank	£2.2 million	2024/25+	RED
Lambton Bridge	Structure in poor condition due to deck deterioration, remains open	£5.0 million	2024/25+	RED
Baths Footbridge	Deck and abutment failure, restrictions in place but remains open	£5.0 million	2024/25+	RED
Wolsingham Bridge	Structure requires major refurbishment scheme, remains open	£1.2 million	2024/25+	RED
A68 Witton le Wear New Bridge	Phase 2 - Deterioration of concrete deck, bridge remains open	£2.0 million	2025/26+	RED
A167 Browney Bridge	Deterioration of steel deck, bridge remains open	£3.5 million	2025/26+	RED
A167 Croxdale Bridge	Deterioration of steel deck, bridge remains open	£2.0 million	2025/26+	RED
Kingsgate Footbridge, Durham	Grade 1 listed concrete footbridge that requires major refurbishment, remains open	£5.0 million	2025/26+	RED
Note : Budget estimates are very high-level and for illustration purposes only until further feasibility work has been carried out.				

Performance

Durham County Council has a Statutory duty to monitor the condition of highway structures, routine inspections are undertaken to monitor condition and prioritise investment.

General Inspections (GIs) are undertaken two-yearly and Principal Inspections (PIs) six-yearly, in line with guidelines contained in the following documents:

- Well Managed Highway Infrastructure – A Code of Practice.
- CS450 formerly BD63/17 – Inspection of Highway Structures as Part of the Design Manual for Roads and Bridges (DMRB).
- The Inspection Manual for Highway Structures.

In addition to PIs and GIs, where there is a concern regarding the condition of a structure, structural reviews / assessments are undertaken, this involves intrusive investigations and assessment calculations to determine condition and loading capacity.

Additional Investment

The Council supplements Government LTP settlements with additional investment through capital funding, in financial year 2023/24 the following structures projects were funded / supported through capital investment:

- Whorlton Bridge – Closed for public safety in December 2020, located in Teesdale near the village of Whorlton, the UK's oldest road iron suspension bridge which is a Scheduled Ancient Monument. £2.2 million capital funding in 2023/24 supported a £3.25 million LUF 1 funding bid to enable the full dismantling, refurbishment and re-erection of this iconic structure. The overall project which started in 2023 will complete 2025 with an overall investment of circa £9 million.

Whorlton Bridge refurbishment updates - Durham County Council

- Framwellgate Weirs - Located in the heart of Durham City, downstream of the scheduled ancient monument of Framwellgate Bridge and prominently located in the shadow of the iconic Cathedral and Castle. £1.4 million of capital funding was made available to undertake temporary repairs of the weirs and a detailed design of a permanent repair solution.

- Additional funding was approved in financial year 2023/24 to develop feasibility studies and detailed design on the red RAG rated top 10 priority structures. The £5 million investment will be utilised through financial years 2024/25 and 2025/26. Funding for the actual construction works will be considered in due course.

8. Street Lighting

Asset

In total there are over 88,000 street lighting assets across the county, in the main in urban locations. These assets vary in construction and condition, the key priority is to replace life expended columns and reduce energy consumption.

Asset	Unit	Total
Street lighting		
Columns/ Lanterns	Number	82,423
Lit Signs	Number	5,737
Total	Number	**88,160**

Investment

The street lighting capital programme focuses on the replacement of life expended columns, the works required far exceed the budget available therefore all potential schemes are prioritised taking into consideration column condition, location and data from our routine inspections. Each column is inspected six-yearly to ensure integrity and to inform the replacement programme.

The overall budget for street lighting column replacements is £1.5 million.

Treatment

Lantern Replacement – The majority of lantern replacements are currently undertaken as part of the ongoing SLERP project. Other replacements are carried out on an ad-hoc basis as/when faults occur or are reported.

Column Replacement – Column replacements are identified from the asset register and when the risk register identifies they are nearing the end of their serviceable life, this is normally when the assets are 40 years old.

Lit Sign Replacement – Replacements are carried out on an adhoc basis but predominately in conjunction with highway improvement schemes and following road traffic damage.

Underground Cable Replacement – A high proportion of underground cable is currently nearing the end of its serviceable life and is replaced where necessary during capital column replacement projects. This activity is increasing the cost of capital programmes but is essential to ensure public safety.

Condition

The condition of the street lighting asset is based upon the age rating of the columns and is broken down into 4 bands.

This is determined through the scheduled cleaning/testing regimes.

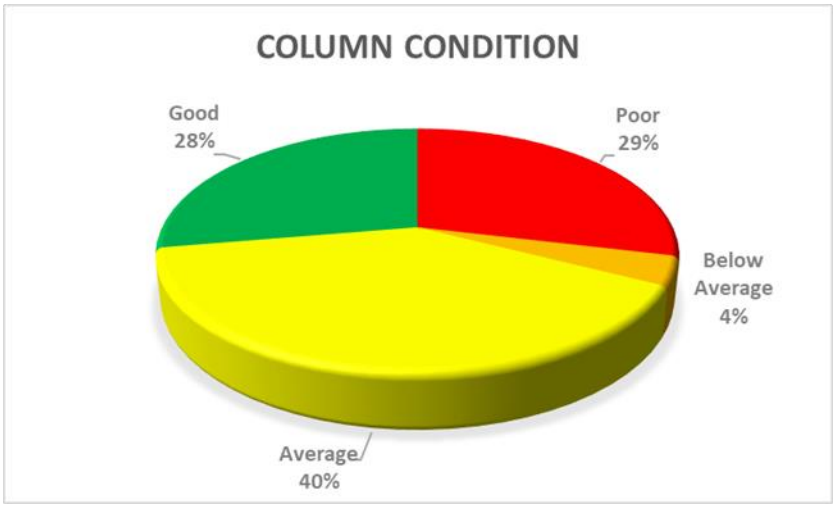
Good – These are columns that have recently been installed and are within the first few years of their useful life.

Average – These are columns that have been installed for a while but are still considered structurally sound.

Below Average – These are columns that are approaching the end of their useful life and require structural testing to ensure they are still structurally sound.

Poor – These are the columns that have reached or exceeded their useful life and require replacement or continued structural testing.

The following chart depicts the overall condition of our street lighting assets with the data correct as of the 31st of March 2024.



Performance

In the main the majority of the street lighting assets are in fair condition however an element of the street lighting column asset is leaving the end of its serviceable life. Robust routine maintenance and inspection regimes ensure the integrity of the overall stock.

In year street lighting assets working as planned is 98% which is in accordance with national standards.

Additional Investment

- Street Lighting Energy Reduction Project (SLERP) - In addition to the column replacement programme an extensive lantern replacement programme has continued, over the last 10 years 90% of the 82,000 existing street lighting assets have been converted to low energy lanterns (LED).

  In financial year 2023/24 as the initiative approaches completion, efforts have been focused on the more challenging lantern conversions, in year 900 of the 1600 in scope were completed. The overall project has facilitated energy reductions of up to 60%.

  The project has been the biggest single contributor to date to the Council's reduction in carbon emissions.

- Additional capital funding of £1 million was approved in financial year 2023/24 to supplement government LTP settlements, this will support the column replacement programme.

Innovation

NightTune

The council continues to support and introduce environmental initiatives to reduce energy usage, carbon emissions and environmental impacts. An in-year project which installed eco-friendly lanterns along the Aykley Heads Footpath. These lanterns, approved by the International Dark-Sky Association, offer unique features like colour temperature adjustment, dimming regimes, and precise light control. These features not only minimise environmental impact but also benefit nocturnal ecology utilising warm white light during most of the night.

Solar

We have supported a trial of Solar Powered Street Lights in Sacriston to understand cost benefits, useability and energy savings. As technology in this field improves and benefits are realised solar powered street lights will be considered going forward.

9. Drainage

Asset

The main purpose of the council's drainage system is to alleviate surface water flooding and reduce the risk of property flooding, ensuring the highway network is maintained in a safe and serviceable condition. The assets vary in construction and condition and include:

Asset	Unit	Total
Drainage		
Gullies	Number	**110,633**
Culverts	Number	**300**
Total	Number	**110,933**

Investment

Maintaining the drainage network is costly, the works required far exceed the budget available therefore all potential schemes are prioritised however the major consideration is to minimise and reduce property and highway flooding.

In financial year 2023/24 there were 38 extensive drainage schemes completed in flood risk areas, an investment of £1.1 million.

The overall budget for drainage in 2023/2024 is £1.1 million.

Treatment

Several different treatments are utilised to maintain the drainage infrastructure and a 3-year rolling capital programme is developed each financial year.

Gully Cleansing – The annual gully cleansing programme is informed from a number of factors including location, condition, capacity, flooding history and catchment area. Assets are cleaned on a predetermined frequency informed by a risk-based approach. The cleansing frequency varies from three monthly to biennial. On an annual basis over 100,000 cleanses are completed, recorded and monitored.

Drainage Schemes – Generally involve the cleaning and root removal from existing systems, increasing the capacity of the existing drains or direct replacement of damage drainage infrastructure. The gully cleansing programme often informs these projects however the work generated from this activity far exceeds the available budget.

Flood Investigation - All reported flooding events where they impact on the property and highway assets are investigated. These investigations inform future maintenance, improvement or mitigation schemes as appropriate with property flooding being the highest priority. In 2023/2024 77 flood investigations where undertaken, 28 capital flood mitigation schemes were delivered, 182 small drainage schemes and repairs completed and 194 major investigations relating to highway flooding initiated. 1013 reports of defective gullies which were reported from the gully cleansing programme have been investigated and repaired by a dedicated drainage team, 929 non-urgent gully repairs noted for future consideration.

Condition

It should be recognised that the existing drainage asset is ageing, whilst new assets following the completion of new housing developments places increased pressure on limited budgets.

Performance

The impacts of climate change are placing additional pressures on the service, last year there were 9 extreme flood weather events, the council worked collaboratively with key stakeholders to provide a robust and resilient response.

The impact of climate change was no more evident than during 2023/24 when there were 11 named storms, many of which caused flooding of the highways in addition to private homes and commercial premises.

Additional Investment

- Additional capital funding of £1 million was approved in financial year 2023/24 to supplement government LTP settlements, this will support the drainage capital programme.

Innovation

Northumbria Integrated Drainage Partnership (NIDP)

This partnership brings together 14 lead local flood authorities across the Northeast together with the Environment Agency and Northumbrian Water to reduce flood risk and promote sustainable drainage. The overall project has a budget of £26 million over a 7 year programme, in 2023/2024 (Year 4), Durham successfully developed 4 flood prevention studies to mitigate the impacts of flood events.

Lead Flood Authority

The Council is the Lead Flood Authority within the region and works very closely with the Environment Agency, Northumbrian Water, and all neighbouring authorities to develop resilient flood prevention projects and sustainable drainage solutions throughout the county and the wider region.

10. Construction Costs

As LTP settlements have remained static for a number of years and as a consequence of hyperinflation the actual benefit from investment has reduced. As an example, in some areas of construction, inflation has increased by up to 40%, this has the net effect of reducing the amount of work delivered on the ground. With the worth of capital budgets reducing, the condition of the highway network continues to deteriorate resulting in increased revenue costs.

The construction industry has faced “unprecedented levels of demand” with the shortage of product availability placing significant pressure on civil engineering projects at a local and national level. A perfect storm of Brexit, Covid 19, high levels of demand, global conflict, rising oil and gas prices have combined resulting in inflation running at its highest level for 10 years.

11. Public Satisfaction

The Council participates in the National Highways & Transportation (NHT) Public Satisfaction Survey, which is undertaken by IPSOS/MORI. The details of the most recent survey can be found on the NHT website www.nhtnetwork.org/nht-public-satisfaction-survey/findings/

These public satisfaction surveys have shown that a well-maintained highway network is very important to residents.

Durham's theme scores are generally very favourable when benchmarked regionally and nationally, unfortunately the data for 2023/2024 is not yet available, the most recent data is shown below (2021/2022):

Theme	Description	Score	NHT Average	Trend	Gap
	Overall	52%	50%	-2%	2%
	Accessibility	65%	68%	-6%	-3%
	Communications	45%	46%	-6%	-1%
	Public Transport	49%	51%	-7%	-2%
	Walking/Cycling	51%	51%	-3%	0%
	Tackling Congestion	49%	44%	-1%	5%
	Road Safety	51%	52%	-2%	-1%
	Highway Maintenance	47%	46%	-2%	1%