Local highways maintenance transparency report

Bolton Council


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Our highway network

The table below includes information about the highways network that Bolton Council manages.

Lengths of highways, footways and cycleways

Type of highway	Length in kilometres
A road	107
B and C roads	88
U roads	822
Total roads	1017
Footways	1,407
Other public rights of way	367
Cycleways	29

The above list of assets indicates the physical size of our network. However, for it to function there are other significant assets required for its operation which are listed below.

Other Significant Assets

Other Assets	Number
Highway Structures	360
Streetlights	36,209
Road Signs	12,900
Road Gullies	65,500
Illuminated Signs and Bollards	2496

Highway Structures include bridges, subways, culverts, retaining walls and sign gantries. The number stated on the above list only includes the structures that are the responsibility of Bolton Council. There are many other structures on the network that are the responsibility of other bodies such as: Highways England, Network Rail and private landowners.

Our register of highway structures includes over 1000 structures that may impact the use of the highway.

The highway authority is also responsible for the maintenance of many other minor assets, such as; street name plates, zebra crossings, road markings, traffic enforcement cameras, grit bins and weather stations.
Traffic lights, some traffic cameras and traffic-light controlled pedestrian crossing installations are controlled and managed by Transport for Greater Manchester.

The Highway Authority also manages around 800,000 square metres of grass verge, and embankments, most of which provide important wildlife habitats that have become scarce within the wider countryside, so has a significant contribution to biodiversity.

All assets will deteriorate over time, the rate at which highway surfaces deteriorate depend on their construction and age. They are particularly susceptible to damage from water, cold weather, overloaded vehicles and being dug up by utility companies.

Keeping all the assets operational requires constant monitoring and investment, and due to the size of the network the financial cost of doing this is substantial.

Highways maintenance spending figures

The table below shows our capital and revenue spending on highway maintenance over recent years and includes the split between preventative and reactive activities.

Year (£)	Capital allocated	Capital spend (£)*	Revenue spend (£)	Estimate of percentage spent on preventative maintenance	Estimate of by DfT percentage spent on reactive maintenance
2025 to 2026 projected	£4.794M	£0	£1.664M	74.2%	25.8%
2024 to 2025	£3.462M	£4.69M	£1.773M	72.6%	27.4%
2023 to 2024	£5.211M	£5.089M	£1.834M	73.5%	26.5%
2022 to 2023	£3.127M	£4.891M	£2.479M	66.4%	33.6%
2021 to 2022	£4.23M	£3.822M	£2.092M	64.6%	35.4%
2020 to 2021	£3.048M	£3.133M	£1.604M	66.1%	33.9%

*Actual spend includes carry over from previous years

Additional information on spending

The above table shows the capital and revenue expenditure on road carriageways only.

In addition to the above further capital money is also spent on other assets and making improvements to the network, such as traffic schemes to upgrade traffic-light controlled junctions and improve cycling facilities.

In addition to the capital spending stated above; another £8.9M of capital expenditure was in the last 2 years spent on:

Category	Capital Expenditure
Public Realm Improvements	£5.8M
Traffic Safety	£350 k
Junction Improvements	£750 k
Maintaining Bridges and Structures	£1.77 M
Street Lighting Replacement	£288 k

In addition to the revenue spending stated above; another £ 6.75 M of revenue expenditure in the last year was spent on:

Category	Revenue Expenditure
Safety Inspection, Streetworks Management and Insurance	£1.75 M
Winter Gritting	£760 k
Streetlighting Energy	£2.15 M
Streetlight Maintenance	£1.1 M
Gully Cleaning and Highway Drainage	£719 k
Road Signs and Road Marking	£270 k

Preventative Maintenance

We have an annual programme to arrest the deterioration of the road network. This can involve the application of a thin surface treatments to improve the road surface. Where this is not possible the surface may need to be replaced by removing the existing surface course and replacing with new asphalt. Badly deteriorated roads may need more intrusive repairs.

The table below shows the length of carriageway maintained on the network in the last 5 years.

	2020 to 2021	2021 to 2022	2022 to 2023	2023 to 2024	2024 to 2025
Reconstruction, miles	9.5	4.7	4.8	2.7	3.2
Resurfacing, miles	9.8	9.6	4.0	6.0	5.0
Surface Treatment, miles	5.5	9.2	3.5	2.3	5.6
Total, miles	24.8	23.5	12.3	11.0	13.8

This year we plan to undertake approximately 5.8 miles of resurfacing and 2.4 miles of surface treatments.

The structures team monitor and repair large structures the highway depends upon, such as, bridges, retaining walls and culverts. The table below shows the number of structures where work has been network undertaken in the last 5 years.

	2020 to 2021	2021 to 2022	2022 to 2023	2024 to 2024	2024 to 2025
Bridges	0	0	2	1	2
Retaining Walls	2	0	1	3	1
Culverts	1	1	0	0	0

Our primary aim is to move to a planned maintenance regime rather than a largely reactive maintenance regime. By undertaking regular surveys of the highway, we can monitor the condition of assets, determine where the asset is in its lifecycle and make the most appropriate intervention at the right time to prolong its life.

Continuing to be proactive to maintain and improve our network condition, and planning a longer-term approach are crucial. A regular revenue stream and capital investment programme both assist with this.

Reactive Maintenance

Problems on the highway are identified by highway inspectors or from reports by the public. Each report is assessed by an inspector and if an urgent repair is required this is sent to the reactive maintenance team to action. The work might require filling a small pothole to replacing a much larger area.

Estimate of the number of potholes filled

Year	Estimate of the number of potholes filled
2024 to 2025	10,263
2023 to 2024	11,964
2022 to 2023	15,568
2021 to 2022	10,699
2020 to 2021	4,552

Bolton Council defines a pothole as being within a carriageway and over 40mm deep or over 25mm deep on a pedestrian crossing point. Any defects not meeting the above requirements may not be recorded as a pothole and may result in the repair of a defect being planned rather than an urgent repair.

Condition of local roads

Percentage of A roads in each condition category

Year	Percentage of A roads in red category	Percentage of A roads in amber category	Percentage of A roads in green category
2020	2.2	16.4	81.4
2021	1.8	13.2	84.9
2022	2.4	12.2	85.4
2023	3.6	13.6	82.8
2024	1.7	12.5	85.8

A condition survey of all the A roads is undertaken annually.

Percentage of B and C roads in each condition category

Year	Percentage of B and C roads in red category	Percentage of B and C roads in amber category	Percentage of B and C roads in green category
2020	1.6	18.0	80.4
2021	1.6	15.3	83.1
2022	1.9	13.2	84.9
2023	4.5	14.4	81.1
2024	2.7	15.3	82.0

A condition survey of all the B and C roads is undertaken annually.

Road condition assessments on the local classified road network in England are currently made predominantly using surface condition assessment for the national network of roads (SCANNER) which uses vehicle mounted laser-based technology.

A number of parameters measured in these surveys are used to produce a road condition indicator which is then categorised into 3 condition categories:

- green – no further investigation or treatment required
- amber – maintenance may be required soon
- red – should be considered for maintenance

Percentage of Unclassified roads in each condition category

Year	Percentage of U roads in red category
2020/21	29
2021/22	21
2022/23	32
2023/24	21
2024/25	34

Unclassified roads are surveyed annual utilising a visual survey undertaken by qualified technicians. They record major and minor defects which are then used to score the condition of sections of each road. This data is then used to formulate a programme of works for the following year.

A road is classed as red category of road occurs when the road has exceeded the point at which surface or structural repair of the carriageway should be considered.

The road network is also regularly monitored through safety inspections where roads received a walked inspection to identify any defects. The frequency of safety inspections varies but in some cases these may be monthly.

Additional Information on condition

Bolton developed rapidly in the 18th and 19th centuries with the development of many industries. Much of the highway infrastructure dates from this period when the first large-scale commercial and residential development took place. As a result, a large portion of the road network has not been constructed to modern standards and therefore is prone to deterioration.

The condition of classified roads has remained fairly constant for many years at around 2 to 4 % being in a (Red) condition where maintenance should be considered. Funding for the maintenance of classified roads is sent to the highway authority directly from Central Government. This funding stream has ensured the more strategic roads have continued to be in a good condition. It is also as a result of continued investment in surface treatments that extend the life of the road surface and therefore allow longer periods between reconstruction.

Plans

Overall strategy

Bolton Council's Highway Asset Management Policy and Strategy (2025) outlines a comprehensive approach to managing highway assets, focusing on sustainability, efficiency, and long-term planning.

Here are the key elements of our strategy:

1. Asset Management Framework

- Components: The framework includes compiling an asset inventory, conducting condition surveys, assigning service grades, performance grades, asset lives, replacement costs, and assessing asset criticality.
- Outputs: This process leads to calculating remaining asset life, and prioritising investment programs.

2. Highway Assets and Their Condition

- Asset Registers: Detailed registers are maintained for various asset types, with regular condition surveys to monitor deterioration.
- Condition Surveys: Different assets require specific surveys, such as automated vehicle surveys for roads and visual inspections for footways.

5. Life Cycle Planning

- Process: Life cycle planning considers deterioration rates, service levels, maintenance options, and costs to develop optimal treatment strategies.
- Tools: Planning tools predict outcomes from investment strategies, informing future maintenance needs and funding requirements.

7. Asset Strategies

- Carriageways: Routine data collection and surveys inform maintenance programs, with a focus on preventative maintenance.
- Footways and Cycleways: Condition surveys guide maintenance plans, with a preventative approach to extend asset life.
- Structures and Bridges: Regular inspections and lifecycle planning prioritise maintenance based on risk and strategic importance.
- Highway Drainage: Improved data collection and targeted maintenance ensure operational drainage assets and flood resilience.
- Street Lighting: Investment in LED technology and Central Management Control Systems (CMS) reduces energy costs and carbon production.
- Street Furniture: Improved asset information and GIS inventory management enhance monitoring and maintenance.

Bolton Council's approach to asset management is detailed and strategic, aiming to optimise resource allocation, improve network resilience, and ensure sustainable infrastructure maintenance.

Best Practice

To follow best practice, we undertake the following:

1. Risk-Based Approach: Adopting a risk-based approach to highway infrastructure maintenance is crucial. This involves prioritising maintenance activities based on the risk and impact of asset failure.
2. Lifecycle Planning: Effective lifecycle planning ensures that assets are managed from acquisition through to disposal, optimising their performance and minimising costs.
3. Performance Monitoring: Regular monitoring and performance assessment of highway assets help in identifying areas needing improvement and ensuring that maintenance activities are effective.
4. Stakeholder Engagement: Engaging with stakeholders, including the public, to understand their needs and priorities helps in shaping asset management strategies that are responsive and effective.
5. Sustainability and Environment: Incorporating sustainability practices and considering environmental impacts in asset management plans is increasingly important.

Innovation and Efficiency

To deliver on Innovation and efficiency we undertake the following:

1. Data Management and Analytics: Utilising data management systems and analytics to gather, process, and analyse data on highway assets. This helps in making informed decisions and improving efficiency.
2. Automated Monitoring Solutions: Utilise specialist contractors and software for predictive analytics, automated inspections, and optimising maintenance schedules.
3. Collaborative Platforms: Using collaborative platforms to share best practices, data, and resources among different stakeholders and authorities.
4. Resilience Planning: Developing strategies to enhance the resilience of highway assets against extreme weather events and other disruptions.

These practices and innovations are designed to ensure that highway assets are managed efficiently, sustainably, and in a way that meets the needs of the community.

Examples of the above include:

- Using a Highways Maintenance Procurement Framework to reduce administrative costs and obtain safely delivered high quality construction projects.
- The recycling of worn-out bituminous road surfaces into new material.
- Using a compact road planer to increase productivity.
- Using on-site recycling of asphalt to undertake road repairs.
- Trial solar powered streetlights.

Specific plans for 2025 to 2026

- Each year a capital programme of works is prepared and approved by council that sets out what roads and structures will receive maintenance.
- The planned split between preventative and reactive works is 70/30.
- We plan to resurface 5.1 miles of carriageway.
- We are planning to repair structures at Daisy Hill Station, Temple Road, and Moss Bank
- We estimate that around 11,500 potholes will be filled.

Streetworks

We are part of the Greater Manchester Road Activity Permit Scheme (GMRAPS). This provides consistency and a joined-up approach to co-ordination in the Greater Manchester region. Anyone wishing to undertake roadworks must apply for a permit, which allows us to assess their plans, direct timings and even add conditions to minimise the disruption to the travelling public. Furthermore, to stop our resurfaced roads from being dug up we also notify utility companies before we start to see if they have planned works, which can be undertaken before ours. We are also looking to be a Lane Rental authority where we can charge a daily rate for works on our busiest roads during the busiest times. This should incentivise organisations that undertake roadworks by making them think about how they intend to carry out their works and look for innovative ways to avoid the charge by using no dig techniques, collaborating with other roadworks or working outside of the peak periods.

Climate change, resilience and adaption

Highway Maintenance

- **Carriageway Surfacing choices**: Extending the life of the carriageway surface by undertaking surface treatments reduces the carbon footprint of the service by reducing the frequency of having to resurface the carriageway
- **Reduced Temperature Materials:** When surfacing is required, the preference is to utilise warm mix asphalt materials as these use less energy and carbon to produce.
- **Recycling**: On-site recycling of worn-out road surfaces is undertaken using a specialist vehicle, this is a sustainable, cost-effective, permanent solution for patching of road surfaces.

Bridges and Structures

- **Increased rainfall:** Climate change predictions indicate that increased frequency and more intense rainfall is predicted. This can affect structures near watercourses from debris impact damage and erosion of structural supports. The bridge maintenance team have a programme of monitoring structures identified as being at risk.

Highway Drainage

- **Increased rainfall:** Climate change predictions indicate that increased frequency and more intense rainfall is predicted. This poses an increased risk of flooding of highways and from to property from surface runoff from highways. Using the latest flood risk maps the highway drainage team have undertaken the analysis of the network to identify locations at risk of flooding. This has informed the planned frequency of gully cleaning and identified areas at risk of flooding.

Street Lighting

- **Carbon reduction:** Investment in LED technology and Central Management Control Systems (CMS) reduces energy costs and carbon production. Over 90% of our streetlights now have LED lanterns which has significantly reduced the amount of energy and carbon consumption.

  We are trialling solar powered street lighting within the urban area to examine their benefits.