

# Annex A - Local Highways Maintenance Transparency Report

The Department for Transport requires all local highways authorities to publish information about their highways maintenance activities to help local taxpayers see the difference that funding makes in their areas. Date published: June 2025

## Our highway network

The highway infrastructure asset in Nottinghamshire is large, comprising a wide-ranging set of diverse and complex assets. Our responsibility as custodian of these highway network assets is to ensure that they remain safe, serviceable, and usable, ensuring that they continue to meet the needs and expectations of our stakeholders and our communities.

Day to day we manage and maintain the following highway network

This table shows lengths of highway, footways and cycleways

|                                     |                 |
|-------------------------------------|-----------------|
| A Roads                             | 555 km          |
| B and C roads                       | 1,128 km        |
| Unclassified roads                  | 2,744km         |
| <b>Total Road Length</b>            | <b>4,428 km</b> |
| Footways                            | 3,938 km        |
| Other Public Rights of Way          | 2,857 km        |
| Cycleway - on carriageway           | 23 km           |
| Cycleway - on footway               | 245 km          |
| Remote Cycleway / Trails on Highway | 372 km          |
| <b>Total Cycleways Length</b>       | <b>640 km</b>   |

Whilst the most publicly visible assets are our carriageways and footways, we also manage and maintain over 1200 highway structures, including culverts greater than 900mm diameter, retaining walls and heritage assets, 2,073 km of drains and ditches, 414,243 gullies, kerb offlets and grips, 94,996 street lighting columns, 1,175 traffic signals and electronic installations, 182,311 trees, 54,040 traffic signs and 89.460 km of safety barriers.

All these combined assets have an estimated gross replacement cost of £8.1 billion (excluding land)

## Highways maintenance spending figures

Table showing annual capital and revenue spend since 202/21 as well as estimates on preventative and reactive maintenance

| Year                | Capital allocated by DfT (£,000s) | Capital spend (£,000s) * | Revenue spend (£,000s) | Estimate of percentage spent on preventative maintenance | Estimate of percentage spent on reactive maintenance |
|---------------------|-----------------------------------|--------------------------|------------------------|--|--|
| 2025/26 (projected) | £44,675                           | £52,435                  | £19,826                | 36%  | 15%  |
| 2024/25             | £20,999                           | £38,186                  | £20,553                | 32%  | 14%  |
| 2023/24             | £24,311                           | £31,063                  | £19,873                | 22%  | 24%  |
| 2022/23             | £18,630                           | £22,325                  | £20,433                | 18%  | 39%  |
| 2021/22             | £18,630                           | £20,627                  | £19,733                | 18%  | 29%  |
| 2020/21             | £24,639                           | £24,528                  | £18,953                | 17%  | 26%  |

\*Capital Spend includes DfT allocation

## Additional information on spending

Funding for our Highway Service falls into two categories, Capital and Revenue. We use highway maintenance capital funding specifically for the maintenance and the refurbishment of our existing assets. Capital funds for maintenance are primarily sourced from national government, through the Department for Transport (DfT). This funding is identified in accordance with the DfT's highway maintenance investment policy which has strong links to the principle of a risk-based approach to managing assets across their whole life. The DfT does not generally stipulate where or how funding is utilised but expects us as the local highway authority to utilise good asset management principles in our decision making.

Nottinghamshire County Council also invests in the maintenance of our highway infrastructure, in the past five years an additional £37million has been invested in our highway network.

Schemes that are funded through capital allocations include renewals and improvements for street lighting, traffic signals, traffic signs, safety barriers, highway structures and highway drainage alongside resurfacing, surface dressing, micro surfacing and patching of our carriageway, footway and cycleway network

We use revenue funding for day-to-day expenditure, for cyclical and reactive maintenance of assets. Revenue funds are generally sourced through council tax, business rate retention and charging for services provided

Revenue works include reactive works such as pothole filling and gully emptying, and cyclical maintenance on our highway verges, trees, drainage systems, public rights of way, street lighting, traffic signals, traffic signs and road markings. Part of our revenue budget is also assigned to the Winter Gritting Service to keep our network safe during the winter period.

Over the last five years we have completed:

|                     | <b>Carriageways</b>     | <b>Cycleways and Footways</b> | <b>Highways Structures Repaired*</b> | <b>Street Lights Repaired</b> | <b>Gullies Cleansed</b> |
|---------------------|-------------------------|-------------------------------|--------------------------------------|-------------------------------|-------------------------|
| <b>2024 to 2025</b> | 88.20 km<br>54.80 miles | 3.13km<br>1.94 miles          | 7 No.                                | 9,081 No.                     | 97,514 No.              |
| <b>2023 to 2024</b> | 42.75 km<br>26.57 miles | 8.81 km<br>5.47 miles         | 4 No.                                | 7,176 No.                     | 47,949 No.              |
| <b>2022 to 2023</b> | 32.14 km<br>19.97 miles | 6.88 km<br>4.28 miles         | 4 No.                                | 11,243 No.                    | 46,384 No.              |
| <b>2021 to 2022</b> | 48.87 km<br>30.37 miles | 5.98 km<br>3.72 miles         | 5 No.                                | 11,455 No.                    | 60,933 No.              |
| <b>2020 to 2021</b> | 61.16 km<br>38 miles    | 8.09 km<br>5.03 miles         | 6 No.                                | 8,816 No.                     | Not Available           |

\*Major structural schemes

In determining what proportion of our budget allocation should be spent on reactive as opposed to preventative maintenance we take a data driven approach, we use the condition data available for individual asset groups such as carriageway, highway structures, street lighting etc. Assets that are in good or fair condition are candidates for preventative maintenance whereas those assets in poor condition may require reactive maintenance or in the longer-term renewal. We also look at historic data, identify trends in emergency / urgent defects.

From the funding allocated for all reactive repairs across all asset groups we currently spend around 60% on pothole repairs. For context, how we define, investigate and assess potholes (defects) is set out in our [Highway Inspection and Risk Manual \(HIRM\) available at our website](#).

## Estimate of the number of potholes filled

| Year         | Estimate of the number of potholes filled |
|--------------|---|
| 2024 to 2025 | 76,754                                    |
| 2023 to 2024 | 62,288                                    |
| 2022 to 2023 | 80,752                                    |
| 2021 to 2022 | 100,834                                   |
| 2020 to 2021 | 95,752                                    |

The number of potholes filled is based on the number of actionable defects repaired.

Where reactive repairs have been identified, we endeavour to deliver ‘right first time’ repairs as far as possible to properly mitigate risk on the network. By taking this approach reactive works are minimised, in turn reducing carbon emission and financial costs in conjunction with removing the risk that the defect repair originally sought to mitigate. We recognise that where network deterioration is significant in combination with severe weather that delivering that ‘right first time’ is not always achievable, in these situations a temporary repair will be undertaken to keep our network safe, the temporary repair will be followed up by a permanent repair.

## Condition of local roads

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) laser-based technology. [You can read more about SCANNER at their website in this link.](#)

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

- Green – No further investigation or treatment required
- Amber – Maintenance may be required soon
- Red – Should be considered for maintenance

The use of SCANNER by many local authorities has changed in recent years in favour of newer tools offering more comprehensive data rich information.

From 2026/27, Local Highway Authorities will be required to use a supplier that has been accredited against ‘PAS2161:2024 - Road Condition Monitoring (RCM) data specification’. This new standard will categorise roads into five categories instead of three to help government gain a more detailed understanding of road condition in England.

[Further details are available at the GOV.uk website in this link](#)

In preparation for the forthcoming new standard PAS2161:2024 Nottinghamshire has recognised the need to move to more outcome-based, flexible condition monitoring. We have therefore introduced a new video capture system. This system (VAISALA Road AI) utilises Artificial Intelligence (AI) and machine learning to evaluate road condition.

Up until 2023/24 Nottinghamshire has used SCANNER, in accordance with current DfT requirements on the A, B and C class roads. Annually the SCANNER survey was undertaken in one direction every year on the A, B and C class road network. This results in 100% coverage being achieved across a two-year cycle. The new video capture system will survey 100% of our road network each year.

To give Nottinghamshire a balanced perspective a SCANNER survey has been commissioned for 2025/26, this will cover 100% in both directions of our classified A, B, and C roads. The results of the 2025/26 SCANNER survey will be compared with those from our video capture system. This will allow us to better understand the relationship between the outputs obtained from the two different surveying methodologies prior to the introduction of PAS2161 and - if necessary - normalise our 2024/25 results retrospectively.

In addition to capturing data on the carriageways, the video capture system will also be used to capture information on road signs, road markings, and road lining along the entire highway network.

The condition results for the network over the last five years are set out as follows

### Condition of A roads

| Year  | Percentage of A roads in Red Category | Percentage of A roads in Amber Category | Percentage of A roads in Green Category |
|-------|---------------------------------------|---|---|
| 2020  | 2%                                    | 13%                                     | 85%                                     |
| 2021  | 2%                                    | 14%                                     | 84%                                     |
| 2022  | 3%                                    | 18%                                     | 80%                                     |
| 2023  | 3%                                    | 19%                                     | 78%                                     |
| 2024* | 4%                                    | 16%                                     | 80%                                     |

\*Figures calculated using non-SCANNER technology

### Condition of B and C roads

| 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 | 3%  | 21%   | 76%   |
| 2021 | 3%  | 21%   | 76%   |

| 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 |
|-------|---|---|---|
| 2022  | 4%  | 24%   | 71%   |
| 2023  | 4%  | 24%   | 71%   |
| 2024* | 12%   | 25%   | 63%   |

\*Figures calculated using non-SCANNER technology

In addition to the SCANNER Survey, we undertake a skid resistance survey on the A and B class road network, the survey is undertaken with a Sideways force Coefficient Routine Investigation Machine (SCRIM). The SCRIM survey data is essential for addressing safety issues associated with skid resistance on the network. The SCRIM survey covers the A and B class road network on a three-year cycle. Parts of the C road network are also subject to a SCRIM survey based on collision records.

### Unclassified roads' condition

For our unclassified network, road condition has traditionally been measured using Course Visual Inspection (CVI). This is an inspection undertaken by accredited inspectors, who look out for obvious signs of distress and rate the extent and severity of defects, to produce a score that reflects the roads condition. The survey covers around a third of our unclassified network per year meaning that it takes 3 years to build a complete view of our unclassified carriageways' condition.

In the future, our unclassified roads will be surveyed every year using video capture technology. Using the same system to measure the condition of our whole network will make comparisons across different road types more reliable.

| Year  | Percentage of unclassified roads in the Red category |
|-------|--|
| 2020  | 25%  |
| 2021  | 29%  |
| 2022  | 31%  |
| 2023  | 35%  |
| 2024* | 20%  |

\*Figure calculated using new video capture system

### Additional information on condition

The effect of our existing carriageway condition survey strategy, particularly for the unclassified road network (survey one third of the network each year), has implications as it effectively means that a

full network survey is completed every three years. We have found that there are consequences of this survey approach which include

- Condition data may be up to three years old, this can limit our responsiveness to emerging issues and reduce the accuracy of whole-network condition assessments
- Our decisions are based on data, and outdated data can lead to suboptimal prioritisation or delayed interventions, increasing long-term repair costs or risk of failure
- Delaying interventions may lead to minor defects developing into major defects increasing maintenance costs and compromising safety
- Having to employ more intensive interventions, increases carbon emissions and resource use compared to earlier lighter treatments
- Data that is less frequent can make our asset management plans less accurate, making it harder to prioritise schemes and allocate budgets.
- A lower level of confidence in reported road conditions, potentially affecting funding allocations and public perception
- We could find that some sections surveyed three years ago may now have been repaired
- There is also the likelihood that some areas might deteriorate faster than anticipated between survey cycles, especially in high-traffic or weather-sensitive areas

We aim to mitigate these issues through our Highway Inspection programme, where our Inspectors are out on the network, they are able to pick up defects that meet our investigatory levels and categorise them for action.

Moving forward, the use of video capture systems mounted in Highway Inspector's vehicles will allow us to monitor the condition of the entire highway network annually, providing us with real-time information that will give a more accurate picture of what is happening on our network.

## Plans

### Overall strategy

Our current approach to asset management and highway maintenance is based on a combination of strategic planning, data driven decision making and life cycle planning. Our focus is to ensure that the actions we take improve how our highway assets are managed, enables a more effective and efficient Highways Service to be delivered and maximises the impact from targeted investment in highway network assets whilst meeting the wider objectives and corporate goals of Nottinghamshire County Council.

In managing our highway assets, we use a comprehensive, risk-based approach that emphasises proactive investment to maximise efficiency and balance long-term expenditure needs. As part of our approach, we not only fix potholes, but also manage the entire highway network. To make sure all assets within the highway are represented properly, we've defined fourteen asset groups, these are

- |                                  |                               |
|----------------------------------|-------------------------------|
| 1. Carriageways                  | 8. Traffic Signs              |
| 2. Cycleways and Footways        | 9. Road Markings              |
| 3. Highway Structures            | 10. Vehicle Restraint Systems |
| 4. Highway Drainage              | 11. Street Furniture          |
| 5. Street Lighting               | 12. Highway Verges            |
| 6. Intelligent Transport Systems | 13. Public Rights of Way      |
| 7. Forestry                      | 14. Winter Service            |

By adopting this approach, we have gained a greater clarity and understanding of our highway assets, it also enables us to maintain a balance across a wide portfolio of highway assets, whilst addressing the needs of individual asset groups.

### Best practice, innovation and efficiency

To improve our Highways Service we have, in recent years, commissioned a Peer-Led Review through the Local Government Association (LGA) to identify efficiency improvements, align ourselves to national best practice, improve our overall performance and to provide better outcomes for all our stakeholders.

As a result, we developed a Highways Improvement Plan which has transformed our Highways Service, ensuring that we engage more effectively with residents and local communities and that our highways maintenance and management works are driven by our policies and strategy.

Monitoring, measuring, and reporting on asset performance, innovation, and continuous improvement practices is important to making sure we are responsive to changes in requirements and challenges, and to know where we improve and where we can get better.

A successful asset-led approach requires innovation; therefore we have established an Innovation and Continuous Improvement Board (ICI) to realise the benefits of innovations. The ICI board



identifies innovation opportunities, leverages new technologies, and makes sure trial results are recorded. In many cases, innovation just becomes business as usual.

As part of our overall asset management strategy, we are committed to innovation and continuous improvement to deliver better outcomes and a better service for all our stakeholders.

### Specific plans for 2025/26

Our programme for 2025/26 is focused on taking a more long-term proactive, cost-effective, and more efficient approach to the maintenance of highway assets.

Apportioning a larger share of the budget for preventative works, such as surface dressing and micro-surfacing and the use of early life treatments such as asphalt rejuvenation for carriageways. Preventative treatments also apply to other asset groups and include the painting of highway structures and the cleansing of drains, all these treatments will protect good assets, and reduce the need to fix them reactively.

As a consequence, we plan to spend 36% of our total budget on preventative maintenance, including cyclic works such as gully cleansing and 15% on reactive works, the remainder are planned works (49%).

As we develop our maintenance programmes for our 14 asset groups, we consider a lot of things, such as making sure the money we have is used wisely. Instead of treating individual assets in isolation, we look at how the maintenance of one asset group impacts another and take a "whole street" approach.

In this current year, taking a "whole street" approach has led to the identification of a number of schemes that serve the needs of different asset groups together, such as column replacement schemes tying in with footway resurfacing schemes and bridge joint replacement schemes aligned to resurfacing schemes. Taking a coordinated approach to maintenance across asset groups also helps us use road space more efficiently, we aim to cause as little disruption as possible to our road users.

In the development of our programmes, as well as using data and local knowledge; in line with our [Highway Infrastructure Asset Management Policy](#) and [Highway Infrastructure Asset Management Strategy](#) which can be found at our website, and national best practice, it is important to us that County Councillors raise their priorities, as they often have valuable insight in to community needs as this helps us understand our residents' concerns.

In designing our maintenance programme for 2025/26, we have taken into account the needs of our asset groups, made use of data to support our decision making, and considered stakeholder concerns in order to allocate funding in an appropriate manner.

The number of schemes and treatment types identified so far for 2025/26 include:

| Type of asset                    | Number and type of project                             | Distance         |
|----------------------------------|--|------------------|
| Carriageway<br>Total 205 schemes | 54 Resurfacing   | 27 km (17 miles) |
|                                  | 34 Surface Dressing                                    | 92 km (57 miles) |
|                                  | 80 Micro Surfacing                                     | 15 km (9 miles)  |
|                                  | 10 surface preservation / rejuvenation                 | 13 km (8 miles)  |
|                                  | 27 structural patching                                 | 81 km (50 miles) |
| Cycleways and Footways           | 23 resurfacing / reconstruction schemes                | 9 km (5 miles)   |
| Highway Structures               | 4 bridge major maintenance scheme                      |                  |
| Highway Drainage                 | 35 structural drainage improvements and repair schemes |                  |
| Intelligent Transport Systems    | 1 major traffic signal junction refurbishment          |                  |
| Street Lighting                  | 23 column replacement schemes                          |                  |
| Vehicle Restraint Systems        | 1 replacement safety barrier scheme                    |                  |
| Public Rights of Way             | 30 large projects                                      |                  |

*Further additional or urgent schemes may be identified and planned in year*

[A full list of all the schemes can be found at the Notts Highways website.](#)

Although it is difficult to accurately determine the number of potholes to be repaired in the current year, we estimate that 60,300 potholes may be filled in 2025/26, this figure is based on our historic data and the preventative work that has been completed over the last 12 months to reduce the number of potholes from forming in the first place.

## Streetworks and utility management

In Nottinghamshire, we operate a Streetworks Permit Scheme to best minimise disruption on the highway. By ensuring we have well informed and knowledgeable staff we are able to review all the Permits received into the permit scheme and co-ordinate them in the best possible way to avoid clashes and over-running works. Wherever possible, particularly with new developments, we encourage collaborative working to minimise the amount of time traffic management needs to be kept in place.

We also meet regularly with various utility companies and Nottingham City Council to discuss future projects and ways to improve our co-ordination of works. A team of Compliance Inspectors who are our eyes and ears patrol the highway network, or are directed to potential hotspots, to make sure that all works are carried out safely and to the agreed conditions on the Permit to keep delays to the absolute minimum.

Alongside our Streetworks Team we operate a Highways Hub, this is a centralised planning and coordination team for maintenance activities on the highway, it oversees work planning, and coordination of maintenance teams.

The Highways Hub is designed to improve our communication with residents, businesses, and road users. To keep everyone informed the Hub provides clear and timely updates about upcoming and ongoing works. Working closely with the Streetworks Team means that multiple highway openings can be coordinated under a single traffic management system, minimising the frequency of road closures.

## Climate change, resilience, and adaptation

### Decarbonisation

Integrating climate change and sustainability into highways asset management is essential for us to meet our target of being carbon neutral by 2030. We have in place a corporate wide Carbon Reduction Plan.

The Carbon Reduction Plan identifies three broad areas of activities where corporately we can further reduce carbon emissions: energy use in buildings, in highways assets (mainly street lighting), and in work-related travel and transport (fleet vehicles and business mileage in private cars). Additionally, we are also allocating areas for tree planting.

As part of our Highways Service, we are trialling tools that identify materials and designs that minimise carbon emissions throughout the lifecycle of our highway assets from construction to

operation and we are implementing a number of sustainable practices to decarbonise our maintenance operations, these include

- **Using low carbon materials:** Warm Mix Asphalt (WMA) can reduce carbon emissions by up to 15%, WMA uses less fossil fuels and resources during production than traditional Hot Mix Asphalt (HMA).
- **Greater use of in-situ recycling:** through this process, the existing carriageway is recycled by specialist machinery, which reduces costs by reusing the materials in place. This has the added benefit of reducing the carbon footprint material through less vehicle journeys and waste to landfill. It also offers a compliant route for management of asphalt waste containing coal tar, saving on disposal costs
- **Greater use of ex-situ road recycling:** through this process the existing road planings are reprocessed off-site before being brought back to be re-laid on site through a conventional paver. This provides a compliant route for management of asphalt waste containing coal tar and saves on the considerable cost of disposal at landfill.
- **Enhancing asset life:** through proactive preventative maintenance can reduce the need for more frequent interventions. Surface dressing is proven to be cost effective as it seals the road surface and prevents water ingress. Modern improvements through encapsulation 'lock down' the loose chippings, demonstrating positive outcomes by improving public perception.
- **Biogenic road markings:** our road lining contractor has moved from using a hydrocarbon resin binder to a biogenic alternative, which has reduced the embedded carbon. This biogenic substitute still meets all performance requirements for a road marking material
- **Street lighting:** lamp energy efficiencies are being achieved through the change to LED lights, which consume significantly less energy than traditional incandescent, high-pressure sodium, or metal halide lamps, leading to lower electricity costs and reduced carbon emission
- **Road signs:** a programme has been developed to replace all the fluorescent sign light units to new LED energy efficient sign lights units which will help with reducing a significant amount of energy consumption, carbon emissions and the number of maintenance repairs required

## Highway Network Resilience Review

Resilience plays a significant role in maintaining a safe and reliable highway network in the face of various challenges. Over recent years Nottinghamshire's highway network has suffered from increasingly more frequent severe weather events, not only cold wet winters but also long dry and hot summers.

As a result of a multitude of winter storms which caused damage to our carriageways, footways, drainage systems and highway structures along with damage to public rights of way across the county during the winter of 2023/24, a Highway Network Resilience Review (HNRR) was undertaken in Summer 2024 so that we could understand the risks associated with these events.

The review resulted in a number of recommendations which are being actioned. A key action was to review the Resilient Network, and a subsequent review cycle to be implemented. To ensure that we are aware of the risks on our network the review of the Resilient Network includes an evaluation of flood warnings, weather-related road closures, and the identification of critical infrastructure. Following the review, the updated Resilient Network will be published on our website.

Alongside the review of the Resilient Network, and to ensure that the highway network is as resilient as possible, we prioritise schemes in a way that considers their impact on or in support of the Resilient Network in some circumstances, schemes may be brought forward solely for the purpose of enhancing these areas and reducing risks. Using this approach reduces risks, extends the life of assets, and reduces the impact on the highway network.

A possible future improvement to our street lighting infrastructure is the installation of a Central Management System (CMS). This technology would enable real-time monitoring of lantern status and condition, significantly improving repair and maintenance efficiency. By remotely adjusting lighting levels to meet evolving standards, the CMS would "future-proof" the county's 96,000+ street lighting columns, reducing the need for individual site visits.

Beyond lighting, the CMS would provide a foundation for wider "Smart" initiatives, such as integrating temperature sensors, flood and drainage monitors, and footfall counters. These innovations could support teams across Nottinghamshire County Council by delivering valuable insights into activity and conditions on the highway network, helping to shape a safer, smarter, and more responsive public infrastructure.

As the County Council, we are the Lead Local Flood Authority (LLFA), working with our Highways Service we have developed plans to manage flood risks from surface water, groundwater, and ordinary watercourses. Our drainage cleansing programme has been adapted to ensure that areas liable to flooding are cleansed more frequently. We also undertake underwater scour inspections of the foundations of our highway bridges to ensure that they are adequately protected and to assess damage after a major flood incident.

Building resilience into our highway maintenance programme is important to us to ensure our highway infrastructure can withstand challenges like extreme weather.

### Additional information on plans

In addition to maintenance funding, we have been successful in securing funding from the East Midlands County Combined Authority (EMCCA) to undertake major project feasibility studies such as Toton Link Road, Robin Hood Line extension, Kelham proposals and junction improvements at Tollerton, the A6097/Main St junction at Gunthorpe and as well as a potential fourth Trent crossing at Colwick.

EMCCA has also received funding through the Government's new 'Transport for City Regions Fund' for the A614/A6097 Improvements (North Nottinghamshire), these road upgrades will connect ex-coalfield towns and villages to national logistics networks, reduce congestion, and drive economic

renewal and The Trent Arc, the development of a large-scale public transport system linking Derby and Nottingham, strengthening the Trent Arc corridor, a key growth zone for the region.

Having a comprehensive understanding of the plans for wider major projects in the county makes it easier for us to formulate and coordinate our maintenance programme over the coming years.