

# Leicestershire County Council

## Resilient Network

**Status: Final**

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**Team:** Assets and Major Programmes

**Date:** January 2023

**Approved by**

HoS Highways and Transport Commissioning

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# 1. Document Control

## 1.1 Document Version and Amendments

This document has been developed by the Asset and Major Programmes Team, Environment and Transport Department and will be reviewed **every 2 years**.

## 1.2 Version control

Version number	Developed / Amend by:	Approved by:	Date of approval:
Version 1.0	Asset and Major Programmes	HoS Highways and Transport Commissioning	5 <sup>th</sup> January 2023

## 1.3 Table of Amendments

Page no.	Version	Amendment	Date

## 2. Introduction

### 2.1 Alignment with our Asset Management Policy

Our Highways Asset Management Policy (December 2020) supporting principle (no.9) states “The County Council will review the resilience of our network to disruptive events, identifying the strategically critical links and recording these as the Resilient Network. We will prioritise the management and maintenance of this network to minimise the impact that severe weather and other disruptive events would have on economic activity and to maintain access to key services.”

The policy also commits to adopting the 36 recommendations as set out in the 2016 [‘Well-Managed Highway Infrastructure’](#) (WMHI): A Code of Practice. Recommendation 20 – Resilient Network; states that Local Authorities should identify a Resilient Network within their highway network hierarchy.

### 2.2 Alignment with our Network Management Policy

The application of network hierarchies and specific classifications such as the Resilient Network is also essential for network management purposes. It helps us to improve our understanding of our network and make better informed decisions about planning and coordinating works on the network and our priorities for investment.

Our [Network Management Plan](#) (December 2020), which sets out our network management policies, states ‘that will continue to take account of a number of network classifications and hierarchies to help make informed network management decisions’.

### 2.3 Purpose of this document

Leicestershire has had a Resilient Network since 2017. However, as part of our review of Carriageway Maintenance Hierarchies and the development of our risk-based approach, our Resilient Network has been modified. This document sets out what a Resilient Network is, why we need to establish one for the County and how LCC’s Resilient Network has been developed.

### 2.4 Background

Following consecutive severe winters in 2008/2009 and again in 2009/2010 with many Local Authorities running low on salt, [The Quarmby Review](#) (2010) published by the Department for Transport, highlighted problems with ‘just in time’ approach to local authority salt deliveries during times of large spikes in demand. Local Authorities were recommended to build salt barns to keep salt dry and allow for year-round deliveries. Local Authorities were also tasked with identifying a minimum salting route to ease demand during future scenarios of short salt supply.

In 2014, the Department for Transport expanded on this and produced a document called [‘Transport Resilience Review: A review of the resilience of the transport network to extreme weather events.’](#) It included a recommendation that “Local Highway Authorities identify a ‘Resilient Network’ to which they will give priority, to maintain economic activity and access to key services during extreme weather”. This was further supported by the WMHI Code of Practice (2016), which outlined that resilience is defined by the Cabinet Office as: ‘the ability of the community, services, area or infrastructure to detect, prevent, and, if necessary to withstand, handle and recover from disruptive challenges.’ There are four key components to resilience and Highway Authorities are likely to draw on a combination of these in reducing risk of failure, especially on their Resilient Networks:

- resistance – preventing damage (e.g. a flood wall)

- reliability – operation under a range of conditions (e.g. earthworks stabilisation)
- redundancy – availability of backups or spare capacity (e.g. a suitable diversion route)
- and recovery – enabling a fast response and recovery (e.g. temporary bridges).

## 3. Development of the Resilient Network

The starting point for defining our Resilient Network was to maintain economic connectivity. This involved incorporating the proposed Major Road Network (MRN), which is defined as Principal classified A Roads that carry over 20,000 vehicle per day, or over 5% of volume which is HGV traffic. Following on from this, critical infrastructure needed to be defined and included.

### 3.1 Critical Infrastructure

The WMHI Code of Practice (2016) recommends including critical infrastructure such as:

- Connectivity between major communities
- Links to the Strategic Network
- Connectivity across Authorities boundaries where appropriate
- Links to transport interchanges
- Access to emergency facilities including Fire and Rescue, Police, Ambulance Services and Hospitals
- Links to critical infrastructure such as Water Treatment Works
- Principle Public Transport routes, access to Rail and Bus Stations, and to Bus garages and other depots
- Other locally important facilities.

Using the recommendations above, a criterion of key infrastructure within Leicestershire was identified facilitating access to:

- Emergency Services
- Council Depots
- Recycle & Household Waste Sites
- Urgent Care Centres
- Train & Bus Stations
- Crematoria
- Social Services
- Fuel Stations
- Connectivity with neighbouring Highway Authorities
- Connectivity with National Highways and their Strategic roads.

## 3.2 Consultation with Partner Agencies

Leicestershire County Council participates in the Resilience Partnership (Leicester, Leicestershire & Rutland Local Resilience Forum) and through this forum the following stakeholders have been contacted.

- Severn Trent Water
- Anglian Water
- Leicestershire Police
- East Midlands Ambulance Service
- Leicestershire Fire and Rescue Service
- Local NHS trust
- Leicestershire County Council's Waste Management team
- National Highways
- Neighbouring Local Authorities

## 4. How the Resilient Network can be used to manage risks

### 4.1 Maintenance

The Resilient Network is a tool where priority can be given. This includes:

- The highest inspection frequency and response time to ensure continued functionality
- Identify which roads require priority winter gritting
- Prioritising funding to mitigate the onset of deterioration of the asset
- Prioritising work programmes to reduce the risk of failure of the asset
- Prioritising reactive maintenance in the case of extreme weather
- Assisting in emergency planning events including recovering from an emergency event.

### 4.2 Extreme Weather Events

The Resilient Network will receive priority when responding to extreme weather events and incorporate resilience in limiting the effects of these events. Listed below are the common weather events that our network faces on an annual basis. Responding to these events on the Resilient Network will help keep our county open for economic activity and maintain access to key services.

#### Freezing Temperatures

Frost, ice, and snow are the most frequent severe weather events observed for most authorities. We have an extensive winter service network comprising of approximately 48% network coverage. This network is separated into Priority 1 and Priority 2 precautionary salting routes. Both routes are usually carried out at the same time and have an average of 70 runs per annum (This only changes during exceptional circumstances when we need to prioritise). All sections of the Resilient Network will be a Priority 1 route. (See [Leicestershire's gritting routes](#)).

Prolonged winter conditions can result in the need for additional supplies being required, leading to problems with procurement and increased cost. In addition, a prolonged winter requires staff to only carry out winter maintenance activities resulting in other duties deemed lower in priority being postponed. In terms of road condition, the freeze thaw cycle also causes significant damage to the road network (surface deterioration) which has a considerable impact on road user journeys and highway budgets.

#### Prolonged High Temperatures and drought damage

Prolonged high temperatures can reduce soil moisture content, lower the ground water table resulting in a reduction of strength in supporting soil conditions. This can lead to more occurrences of pavement deterioration and subsidence and surface failures such as significant road cracking, rutting and even subsidence.

Where a road has had several surface dressing treatments, the road surface can become binder rich. These sites can be prone to melting during prolonged severely hot summer weather. Because bitumen is black in colour, it absorbs the sun's rays quicker allowing heat to radiate through the road surface cause more of it to melt.

To mitigate this effect, one solution is to spread granite dust onto the surface. The granite dust is light grey in colour, which reflects the sun's heat away from the road keeping the surface cool. In addition to this, the melted bitumen allows the aggregate dust to adhere to the road surface and any melting binder will soak up the dust and solidify.



### Prolonged Rainfall

Prolonged rainfall over a sustained period can lead to both surface water and river flooding, potentially also a rise in groundwater levels as soil reach their saturation level. Such instances will reduce the capacity of the surrounding land and drainage systems to accept surface water and excess water progressively becomes large puddles on the surface.

### Intense Rainfall

Intense rainfall can lead to localised surface water flooding and 'flash' river flooding. These can be highly localised and can last from a few minutes to several hours. Events such as these can quickly exceed drainage capacity causing severe flooding. By their very nature, their exact location and intensity are often hard to forecast far in advance.

### Strong Winds

Strong winds can cause extensive damage over a wide area. The level of impact experienced from fallen trees can be greatly affected by contributing factors, such as tree size, location, soil type and the location of surrounding infrastructure. In addition to this the unpredictability of wind damage makes it difficult to put measures in place. During periods of heavy winds temporary road closures on bridges or raised highways can be put in place, however if a tree should fall this could lead to numerous road closures across the network.

### Pandemics

During a Pandemic, staff shortages could lead to a decrease in staff able to carry out road maintenance. For example, the winter service programme could be affected by a shortage of gritter drivers. In this scenario the focus would be directed to keeping the Resilient Network flowing. The Resilient Network is designed to facilitate access to all critical infrastructure.

## **4.3 Agreed Diversion Routes**

The Local Road Network carries out a critical role in supporting economic activity when trunk roads are closed for planned maintenance, or when severe incidents require an unplanned closure. All agreed diversion routes off [National Highways Strategic Road Network](#) (SRN) (94km) are incorporated into the Resilient Network. Upon this review, an Agreed Diversion Route on the A444 has been added to the Resilient Network (see section 6).

## 5. Critical Infrastructure on Our Resilient Network

Following this review, this section outlines what critical infrastructure is on Leicestershire's Resilient Network, including the new additions added January 2023. (New additions outlined in section 6 of this document).

### 5.1 Emergency Services

Table 1 below shows which Emergency Services are on our Resilient Network. During this review, all Emergency Services were contacted.

#### Police

<u>On Resilient Network</u>	<u>Not on Resilient Network</u>
Enderby HQ, B4114 Narborough Rd South	
Coalville, Broad Street	
Hinckley, Upper Bond Street	
Loughborough, Southfield Road	
Market Harborough, Fairfield Road	
Melton Mowbray, King Street	
Wigston, Bull Head Street	

#### Ambulance

<u>On Resilient Network</u>	<u>Close to Resilient Network</u>
Coalville, Broad Street	Hinckley, Elizabeth Street (P2 gritted, approx. 45m from RN)
Loughborough, Epinal Way	Lutterworth, Gilmorton Road (P2 gritted approx. 35m from RN)
Market Harborough, Fairfield Road	
Narborough, Forest Road	

#### Fire

<u>On Resilient Network</u>	<u>Not on Resilient Network</u>
Coalville, Broad Street	Castle Donnington, Beverly Road (Private Road, approx. 470m from RN)
Birstall, Geoff Monk Way	Billesdon, Rolleston Road (P2 Gritted, approx. 1.6km from RN)
Hinckley, Leicester Road	Lutterworth, Gilmorton Road (P2 gritted approx. 35m from RN)
Loughborough, Epinal Way	Market Bosworth, Station Road (P2 Gritted, 145m from RN)
Market Harborough, Fairfield Road	Shepshed, Charnwood Road (P2 Gritted, approx. 1.3km from RN)
Melton Mowbray, Nottingham Road	
Meridian East, Meridian Business Park	
Wigston, Bull Head Street	

Table 1: Emergency Services Within Leicestershire

## 5.2 Leicestershire County Council Depots

As shown in table 2 below, all Leicestershire County Council Depots are on the Resilient Network except for Misterton depot, but this can be accessed via the Strategic Network (M1 Motorway).

<u>Currently on Resilient Network</u>	<u>Close to Resilient Network</u>
Croft Highway Depot (Via B4114)	Misterton Highway Depot (M1 or Swinford Road via A426)
Mountsorrel Highway Depot	
Melton Mowbray Highway Depot	
Nailstone Highway Depot	
Market Harborough Highway Depot	

Table 2: Leicestershire County Council Depots

## 5.3 Recycling & Household Waste Sites (RHWS)

Since the Covid-19 pandemic, waste sites are being seen more essential than they were previously considered. The current guidance is that Leicestershire County Council must provide a service, but not all locations have to remain open during extreme events. RHWS with Waste Transfer Sites (WTS) should be given priority. Five Waste Transfer Sites are located on the Resilient Network (See Table 3 below).

<u>Currently on RN</u>	<u>Close to RN</u>	<u>Not on or close to RN</u>
<b>Whetstone WTS</b> (B582)	Market Harborough (Via A4304, RN)	Somerby
<b>Oadby WTS</b> (B582)	Lutterworth (Via A4303, RN)	Shepshed
<b>Kibworth WTS</b> (A6)	<b>Loughborough WTS</b> (Via A60, RN)	Ashby-de-la-Zouch
<b>Coalville WTS</b> (Ashby Road, C7210)	<b>Melton Mowbray WTS</b> (via A607, RN)	<b>Barwell - WTS</b>
<b>Mountsorrel WTS</b>	<b>Bardon Hill WTS</b> (via Interlink Way East)	Bottesford

Table 3: Leicestershire County Council Waste & Recycling Sites (Sites in **Bold** are also a Waste Transfer Site)

## 5.4 Urgent Care Centres

Urgent Care Centres offer non-life-threatening emergency care. Table 4 below outlines which of these are located on the Resilient Network. Enderby Urgent Care Centre hasn't been considered for addition to the Resilient Network as it only operates for a small number of hours per day. Similarly, Lutterworth is only open for Urgent Care at weekends and bank holidays but is in very close proximity to the Resilient Network (A426, 80 meters away), as with Oadby Urgent Care Centre (A6, 350 meters away).

<b><u>On Resilient Network</u></b>	<b><u>Close to Resilient Network</u></b>
Loughborough Hospital	Oadby Urgent Care Centre (P2 gritted. 0.35km from RN)
Melton Mowbray Hospital	Enderby Urgent Care Centre (1.6km from RN)
Market Harborough District Hospital	Lutterworth Urgent Care, Feilding Palmer Hospital (P2 gritted, approx. 80m from RN)

Table 4: Urgent Care Centres

## 5.5 Train Stations

The main market town train stations are located on the Resilient Network, with the addition of Syston Train Station as Melton Road is part of the National Highways Agreed Diversion Route.

<b><u>On Resilient Network</u></b>	<b><u>Not on Resilient Network</u></b>
Hinckley Train Station	Narborough Train Station (0.4km from RN)
Loughborough Train Station	South Wigston Train Station (0.3km from RN)
Melton Mowbray Train Station	Barrow-Upon-Soar Train Station
Syston Train Station	Sileby Train Station
	Bottesford Train Station

Table 5: Train Stations

## 5.6 Bus Interchanges

The WMHI Code of Practice (2016) identifies that the Resilient Network should be designed to 'maintain economic activity' with bus interchanges within our Market Towns providing a role in achieving this. During this review and following discussions with the Safe & Sustainable team, additions have been which are outlined on section 6 of this document.

<b><u>On Resilient Network</u></b>	<b><u>Close to Resilient Network</u></b>
Ashby-de-la-Zouch, Market Street	Coalville, Memorial Square (located next to the RN)
Loughborough, The Rushes	Melton Mowbray, Windsor Street (located next to the RN)
Loughborough, High Street/Baxter Gate	Melton Mowbray, St Marys Way (located next to the RN)
Market Harborough, The Square	Hinckley, The Crescent Bus Station (located next to the RN)
Market Harborough, Northampton Road	
Castle Donnington, Hill Top, High Street, Bondgate and Station Road	

Table 6: Bus Interchanges

## 5.7 Social Services

Care for vulnerable people in our community needs to be maintained as highlighted by the Resilience Partnership Team. The Resilient Network ensures access to the four local offices used by the County Council's Adult Social Care and Health team (The locations are shown in Table 7 below).

<b>Office</b>	<b>Address</b>
Blaby, Oadby and Wigston	Bassett Street South Wigston LE18 4PE
Market Harborough	The Symington Building Adam and Eve Street Market Harborough LE16 7AG
Hinckley	The Hinckley Hub Rugby Road Hinckley LE10 0FR
North West Leicestershire	3 High Street Coalville LE67 3EA

Table 7: Social Service Locations

## 5.8 Designated Filling Stations

A Designated Filling Station (DFS) is a selected retail filling station which has been designated by The Department for Business Energy and Industrial Strategy to supply road fuel to Priority Users during a fuel shortage. All of Leicestershire's DFS's are located along the Resilient Network (See Table 8 below).

<b>On Resilient Network</b>
BP A511, B591/Stanton Lane Roundabout
Charnwood Connect, Ashby Road, Loughborough
CO-OP Hinckley, Watling Street, Hinckley
MRH A6 Bypass, Melton Road, East Langton
Shell Leicester, London Road, Oadby
Tesco Melton Mowbray, Thorpe Road, Melton Mowbray

Table 8: Designated Filling Stations

# 6. New Additions to our Resilient Network

## 6.1 Emergency Services

### Coalville, Broad Street

Broad Street, Coalville is a new 24-hour tri-service location from which all three emergency services provide a response to the Coalville area. As such the benefit of being on the Resilient Network will be shared by all three emergency services. 1 km has been added onto our Resilient Network, with the whole length put on a monthly inspection route, highest response time and upgraded from a Priority 2 to Priority 1 gritting route. There is also an added benefit as Belvoir Street (that feeds to Broad Street) has many services including banks and pharmacies (Figure 1 below shows the added route).

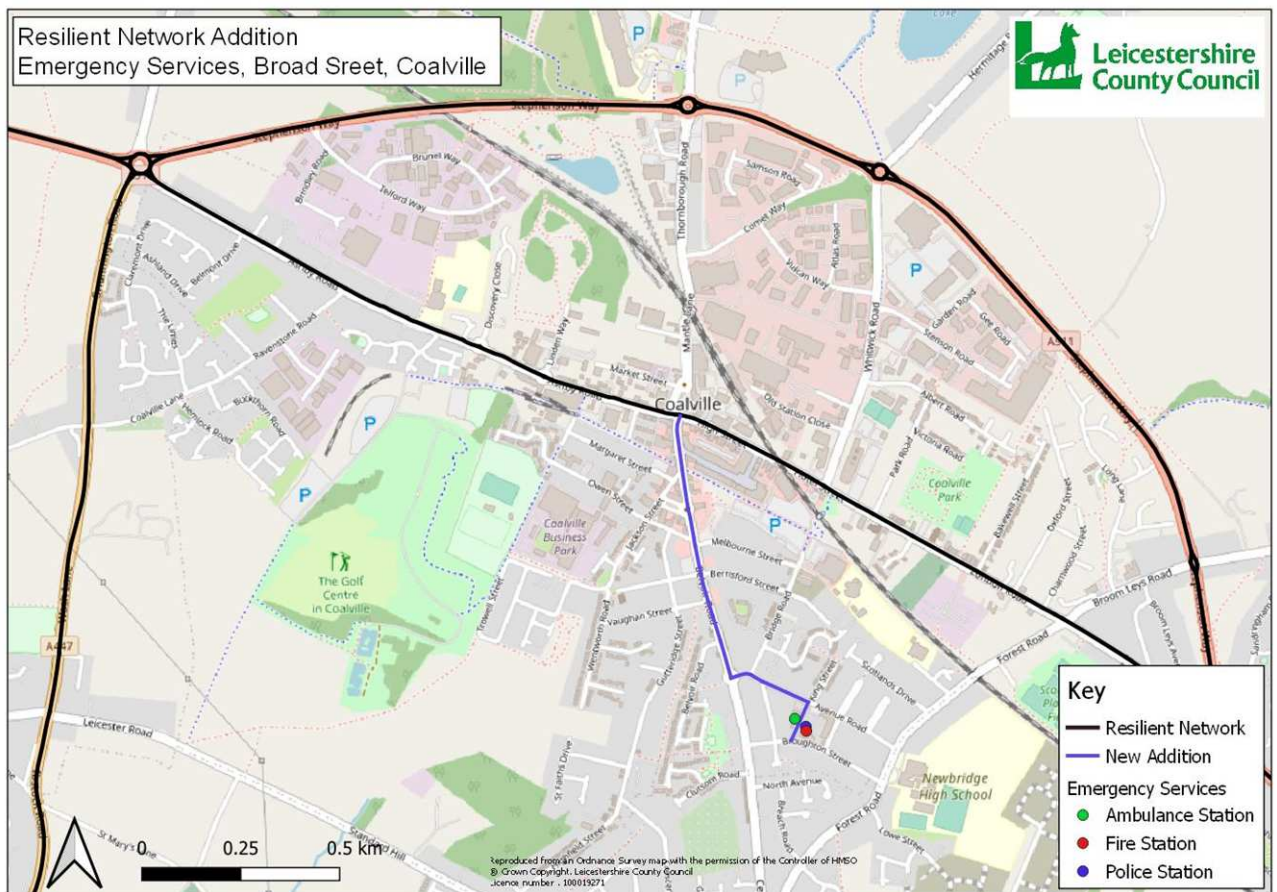


Figure 1: Resilient Network addition Broad Street, Coalville

### Meridian East, Meridian Business Park

Following discussions with Leicestershire Fire and Rescue, Meridian East Fire and Rescue Station was identified as a key location for the Service as it houses a first line response for the area of the county including the M1/M69/A46 Strategic Road Network.

It also houses Fire Control and much of the National Response Capability such as Urban Search and Rescue. There are no additional gritting costs, only 200 meters will have been upgraded from a Priority 2 to a Priority 1 gritting route, and 400 meters added to our monthly inspections. (See figure 2 below).

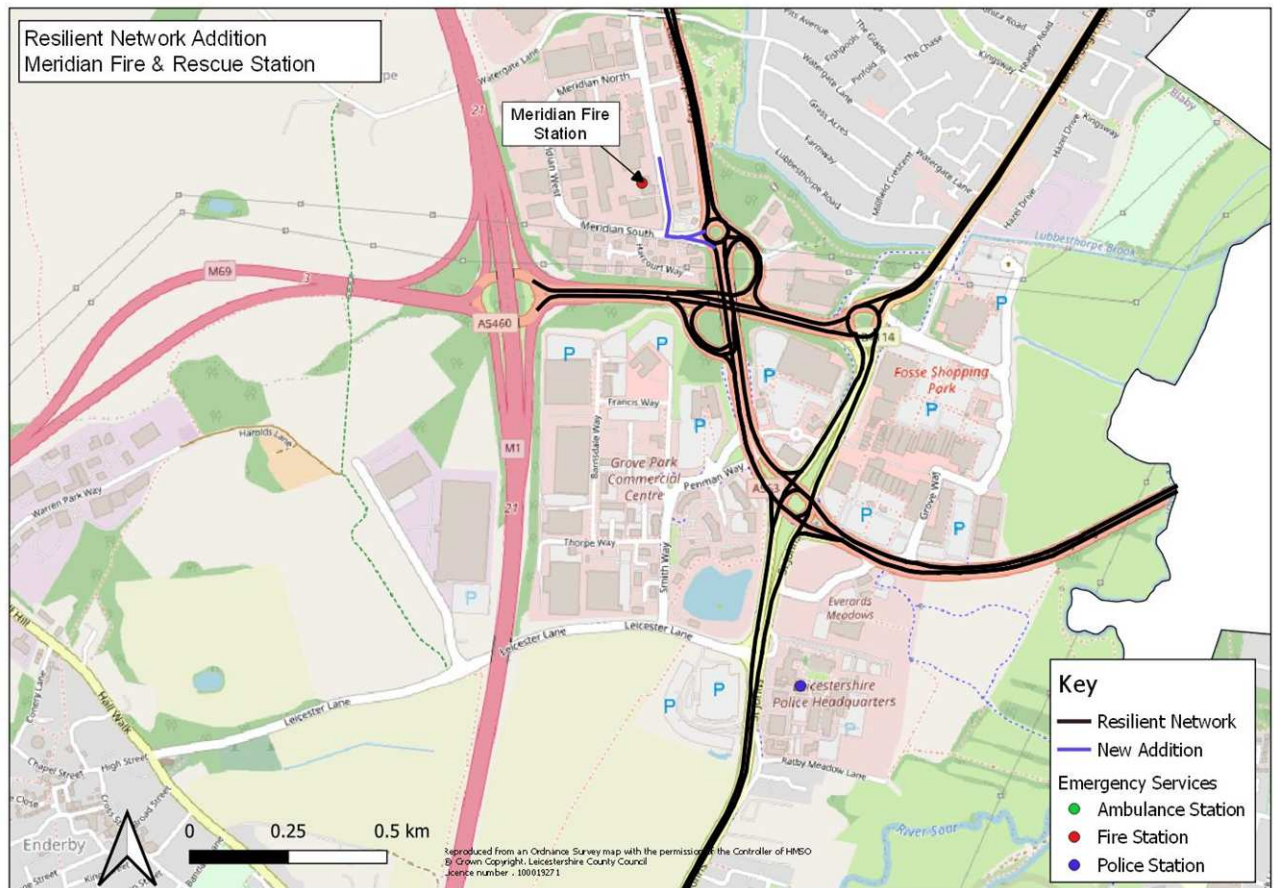


Figure 2: Resilient Network addition Meridian East Fire Station



### Market Harborough, Fairfield Road

Police, Ambulance and Fire & Rescue Stations located on Fairfield Road, Market Harborough (see figure 3 below). 0.6km has been upgraded from a priority 2 to a priority 1 gritting route. The entire length is already on a monthly inspection.

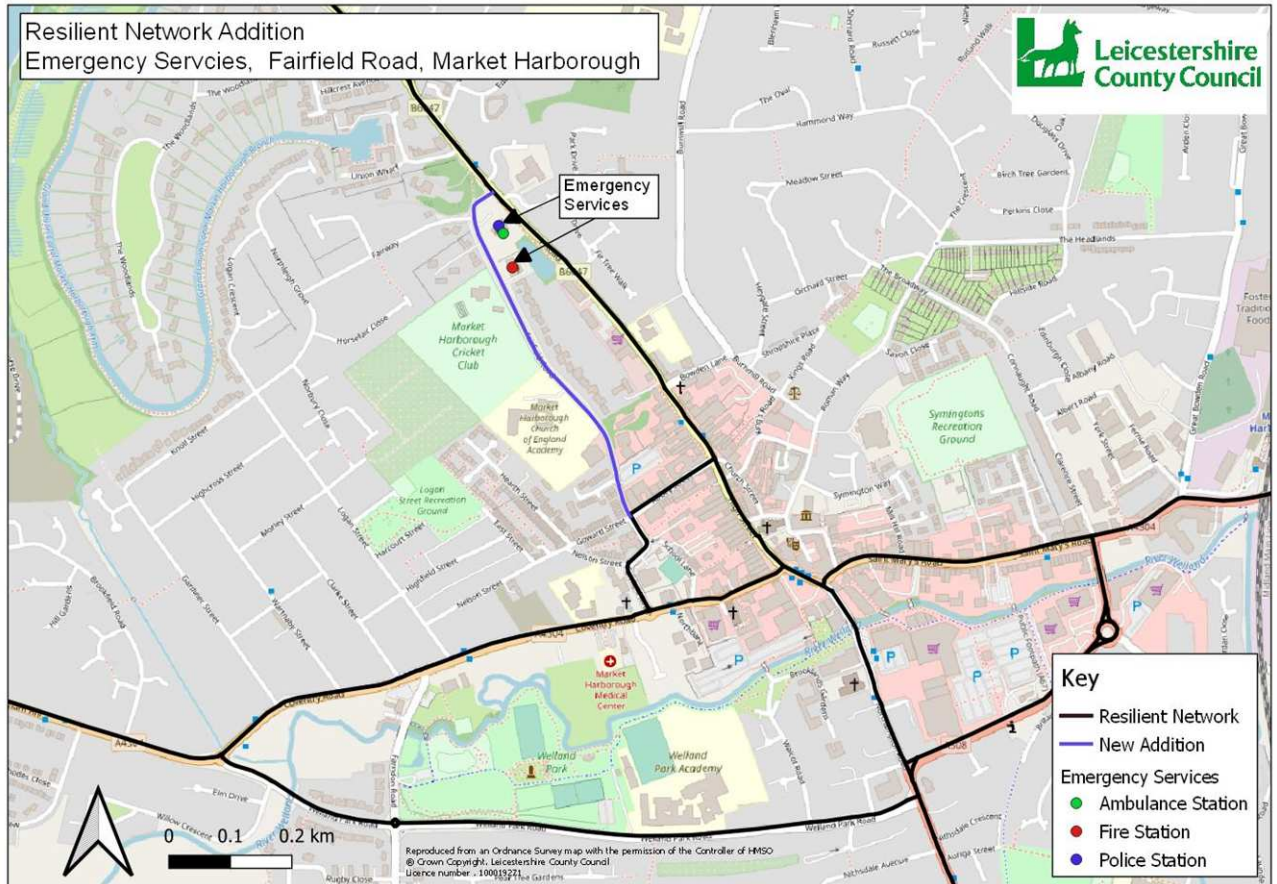


Figure 3: Resilient Network addition Fairfield Road, Market Harborough

### Birstall, Geoff Monk Way

Leicestershire’s Fire & Rescue headquarters, located on Geoff Monk Way, Birstall, provides a first line response to the area and the Strategic Road Network. This section is already on a Priority 1 gritting route but 0.5km has been added onto a monthly inspection.

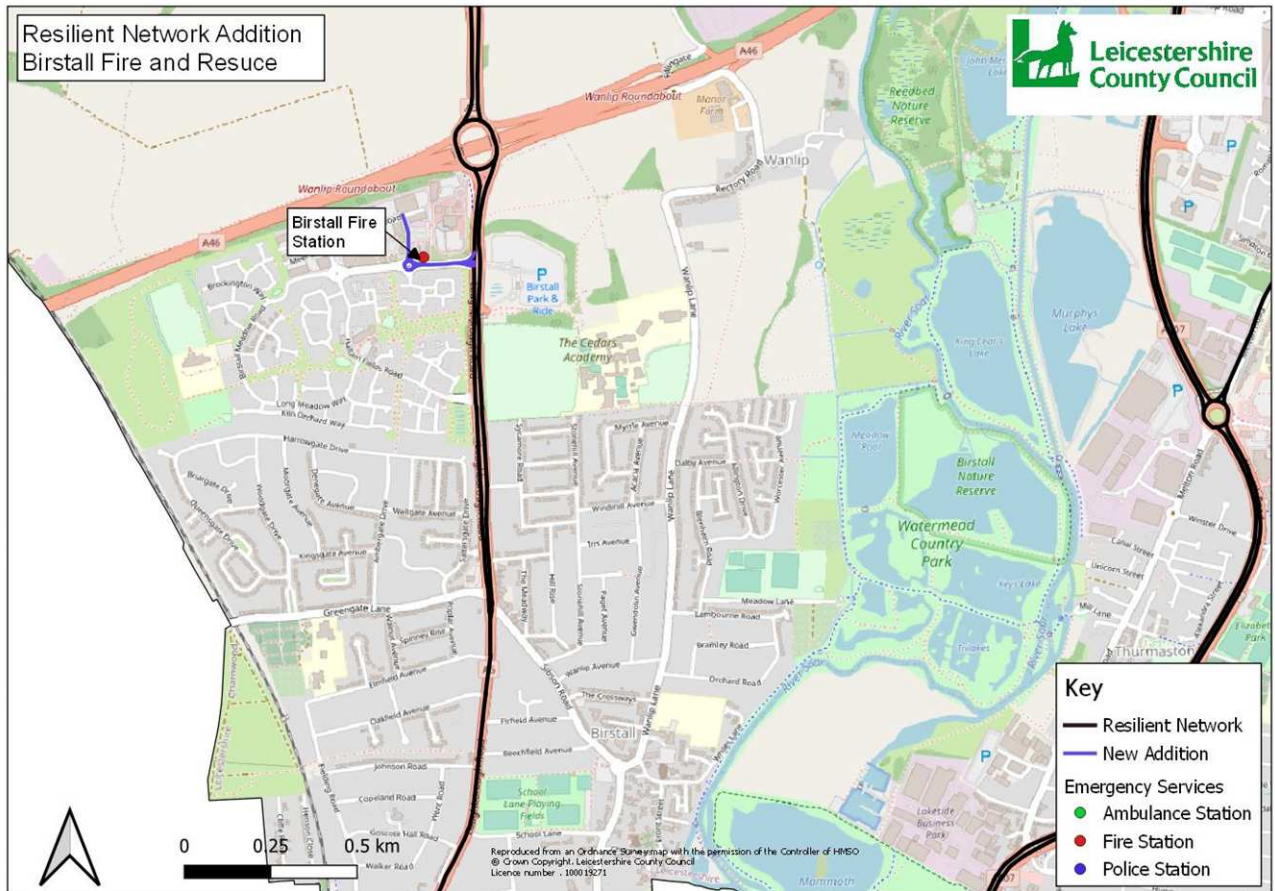


Figure 4: Resilient Network addition Geoff Monk Way, Birstall

### Loughborough Police Station

Loughborough Police Station is located on the B5350 which is a major bus route and cross-town link road providing access to the M1 strategic Network. The route (2.2 km) is already on a monthly inspection and Priority 1 gritting route (see figure 5 below)

## 6.2 Bus Interchanges / Economic Connectivity

### Loughborough, The Rushes & High Street/Baxter Gate

The Rushes and High Street/Baxter Gate bus interchanges, along with the A512 Ashby Road. All roads are already on a Priority 1 Gritting route and inspected monthly. (See figure 5 below).

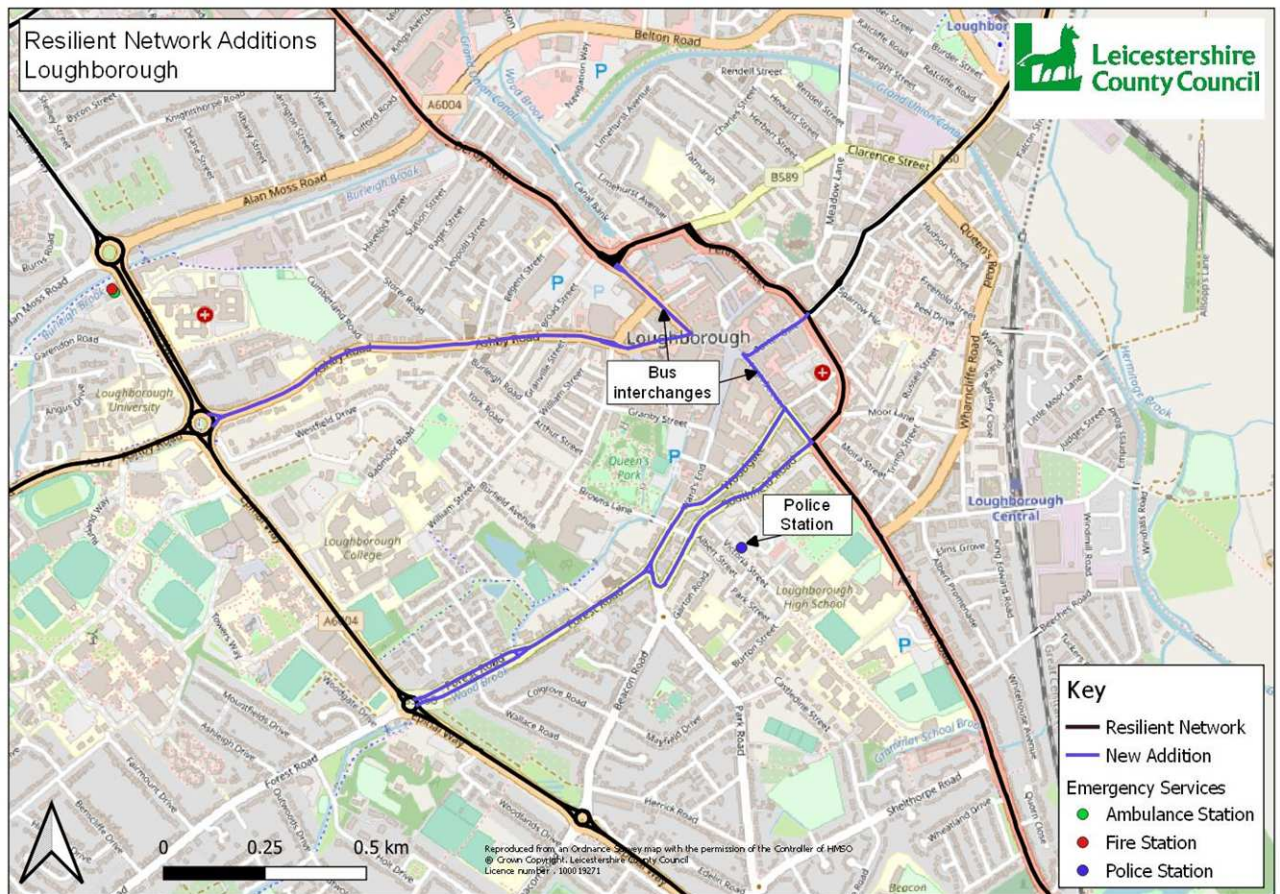


Figure 5: Resilient Network additions to Loughborough

**Caste Donington, Hill Top, High Street, Bondgate and Station Road**

Bus services operating along the corridor of Hill Top, High Street, Bondgate and Station Road, provide a vital link to the many employment sites, such as Aldi Distribution Centre in Sawley, Willow Business Park, East Midlands Distribution Centre, East Midlands Airport, and East Midlands Gateway.

Most of these businesses operate 24 hours a day, which is reflected in the fact that these bus services uniquely operate around the clock to meet this demand. At the busiest points in the day there are up to 7 buses an hour in each direction travelling along the corridor. The total length added onto the Resilient Network is 5.1km. The inspections frequency has increased from a quarterly to monthly with the gritting priority increasing from Priority 2 to Priority 1.

**Castle Donington Relief Road**

Castle Donington Relief Road, which provides access to East Midlands Distribution Centre, a length of 4.8km, is to be added. However, part of this section (3km) is currently prospectively maintained and will need adding onto the Resilient Network once adopted by LCC. The current adopted section is already inspected on a monthly frequency.

**B6540 up to Aldi Regional Distribution Centre**

0.84km of the B6540 leading up to Aldi Regional Distribution Centre. This section is already on a monthly inspection and Priority 1 gritted. (See figure 6 below).

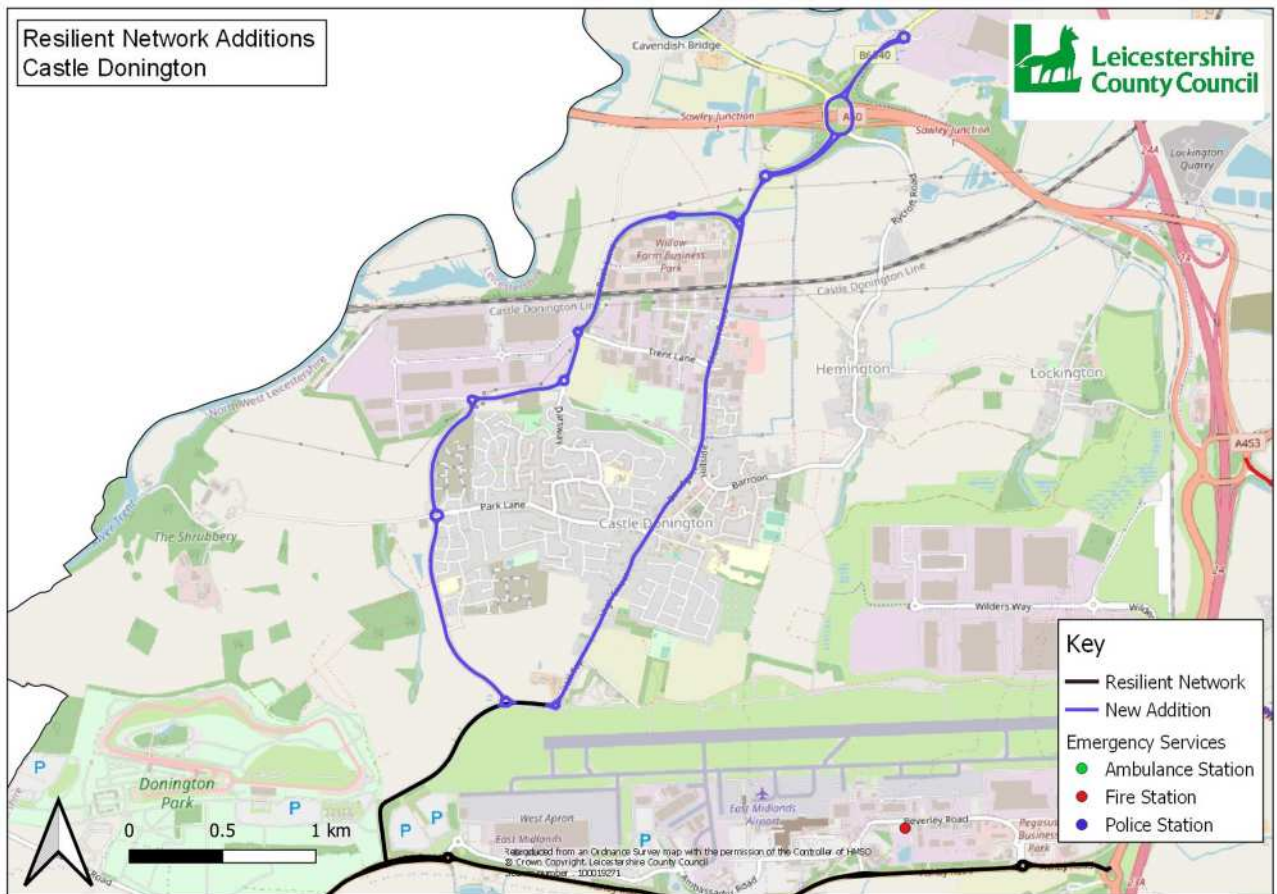


Figure 6: Resilient Network addition in Castle Donington.

### Ashby-de-la-Zouch

Extending the Resilient Network into Ashby-de-la-Zouch provides the benefit of linking up the Bus interchange on Market Street and provides connectivity to a wide variety of services including Banks, Pharmacies, Supermarkets, and industrial estates. The total length added is 3.7km with all sections already on our monthly inspections. 1.7km has increased from a Priority 2 to Priority 1 gritting route along Derby Road, The Callis and Smisby Road.

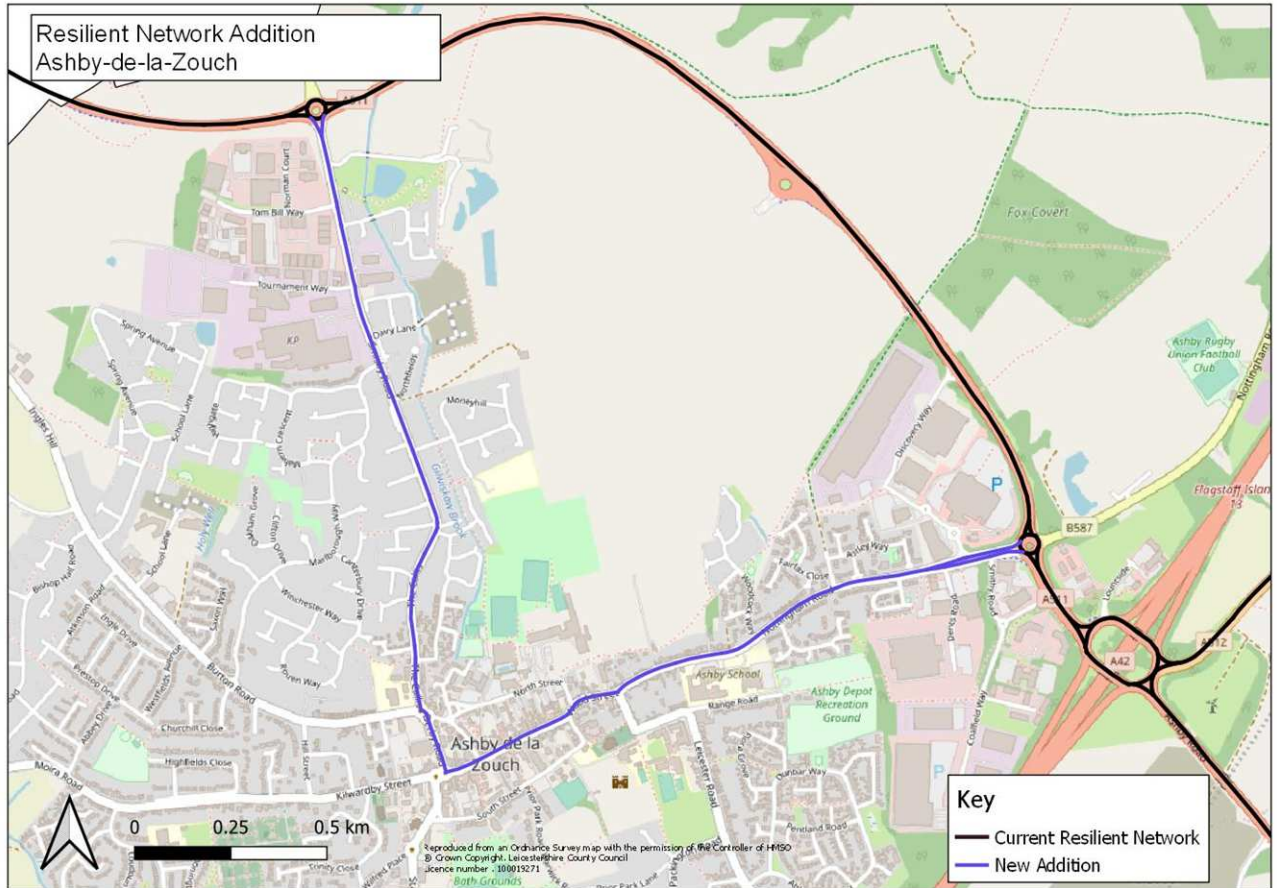


Figure 7: Resilient Network addition in Ashby-de-la-Zouch

### Coalville, Memorial Square

The bus interchange at Memorial Square, Coalville isn't currently on the Resilient Network itself. However, access to the bus interchange is on the on our Resilient Network via High Street and Ashby Road, located only a few meters away.

### Melton Mowbray, Windsor Street and St Marys Way

A similar situation is the bus interchanges along Windsor Street and St Marys Way, Melton Mowbray. These are within close proximity of the Resilient Network.

### Ratby Lane, Kirby Muxloe

Ratby Lane, Kirby Muxloe provides access to Braunstone Frith Industrial Estate, Meynell's Gorse Park and Ride site, and is a link to the M1/A46 Strategic Road Network. This is already on a Priority 1 gritting Route and monthly inspection.

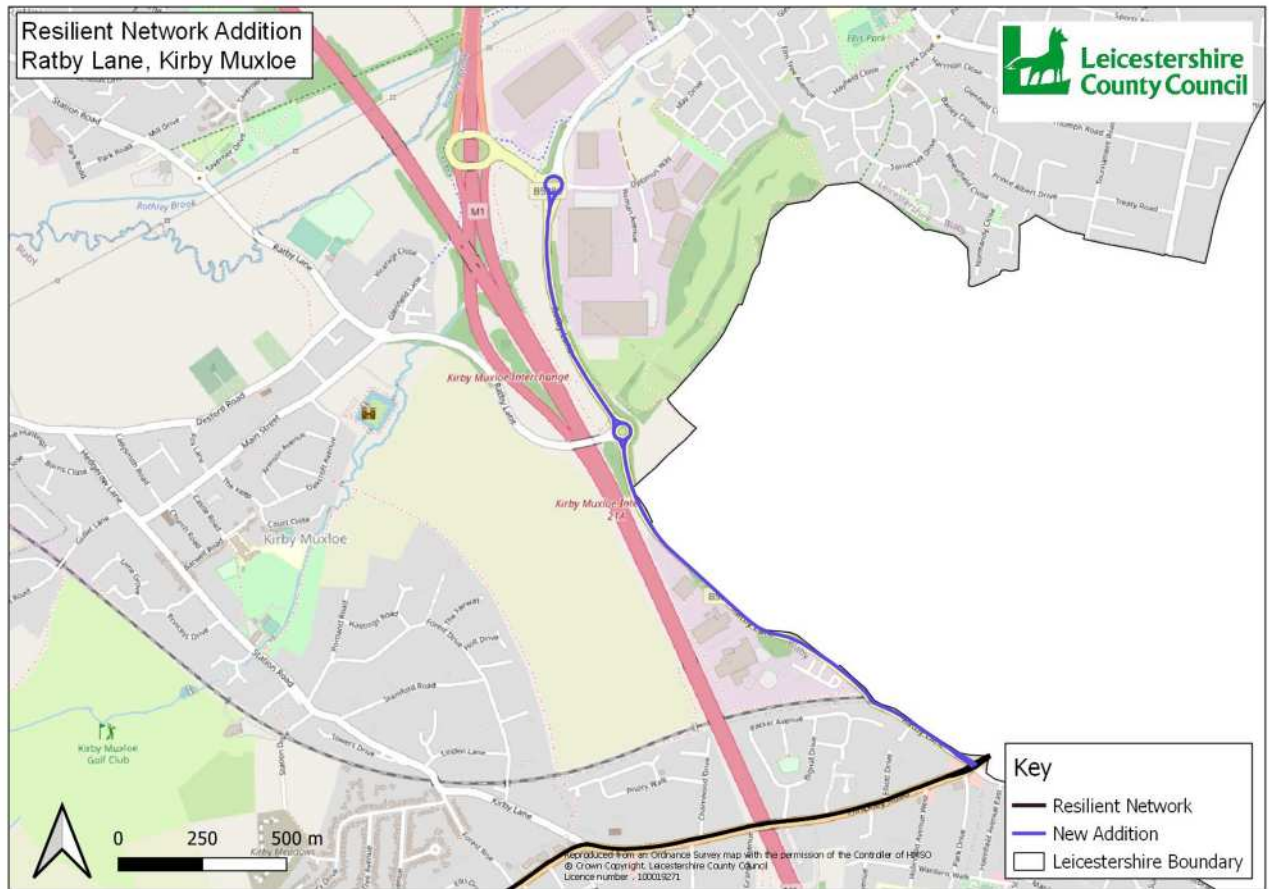


Figure 8: Resilient Network addition Ratby Lane, Kirby Muxloe

### 6.3 Industrial Estates

#### Bardon Hill

Bardon Hill, which locates e-commerce and logistics companies, has been added onto our Resilient Network as in recent years and especially during the pandemic, we have witnessed the sharp rise and importance of e-commerce. Adding this section onto our Resilient Network (shown in figure 9 below) will allow goods to move throughout the county during extreme events. This 6km route is already on a monthly inspection, 2.3km of the route will need to be lifted from Priority 2 to Priority 1 gritting route.



Figure 9: Resilient Network addition Bardon Hill

### 6.4 Agreed Diversion Routes

All [National Highways Agreed Diversion Routes](#) have been included within our Resilient Network. A new addition is a 3.7km section of the A444. This is already on a monthly inspection and Priority 1 gritting route (see figure 10 below).

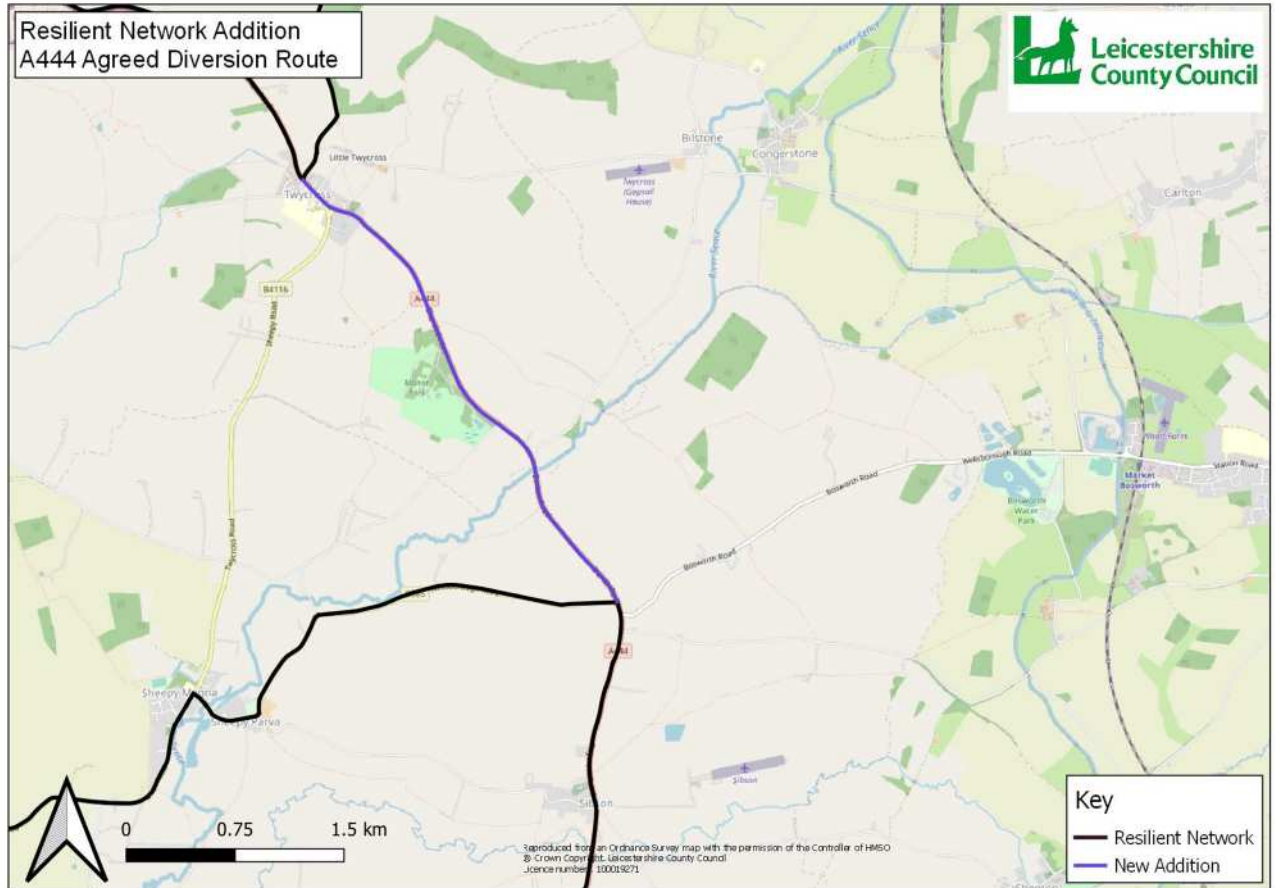


Figure 10: Resilient Network addition A444 Agreed Diversion Route



## 6.5 Crematoria

The Covid-19 pandemic has highlighted the importance of accessing crematoria. Loughborough crematorium was already on our Resilient Network. The other two within Leicestershire, Great Glen Crematorium and Countesthorpe crematorium, both of which opened after our Resilient Network was first published in 2017, have now been added.

### Great Glen crematorium

Great Glen crematorium is located close to the A6 which is part of the Resilient Network. 2.7km has increased from a quarterly to monthly inspection and from a Priority 2 to a Priority 1 gritting route.

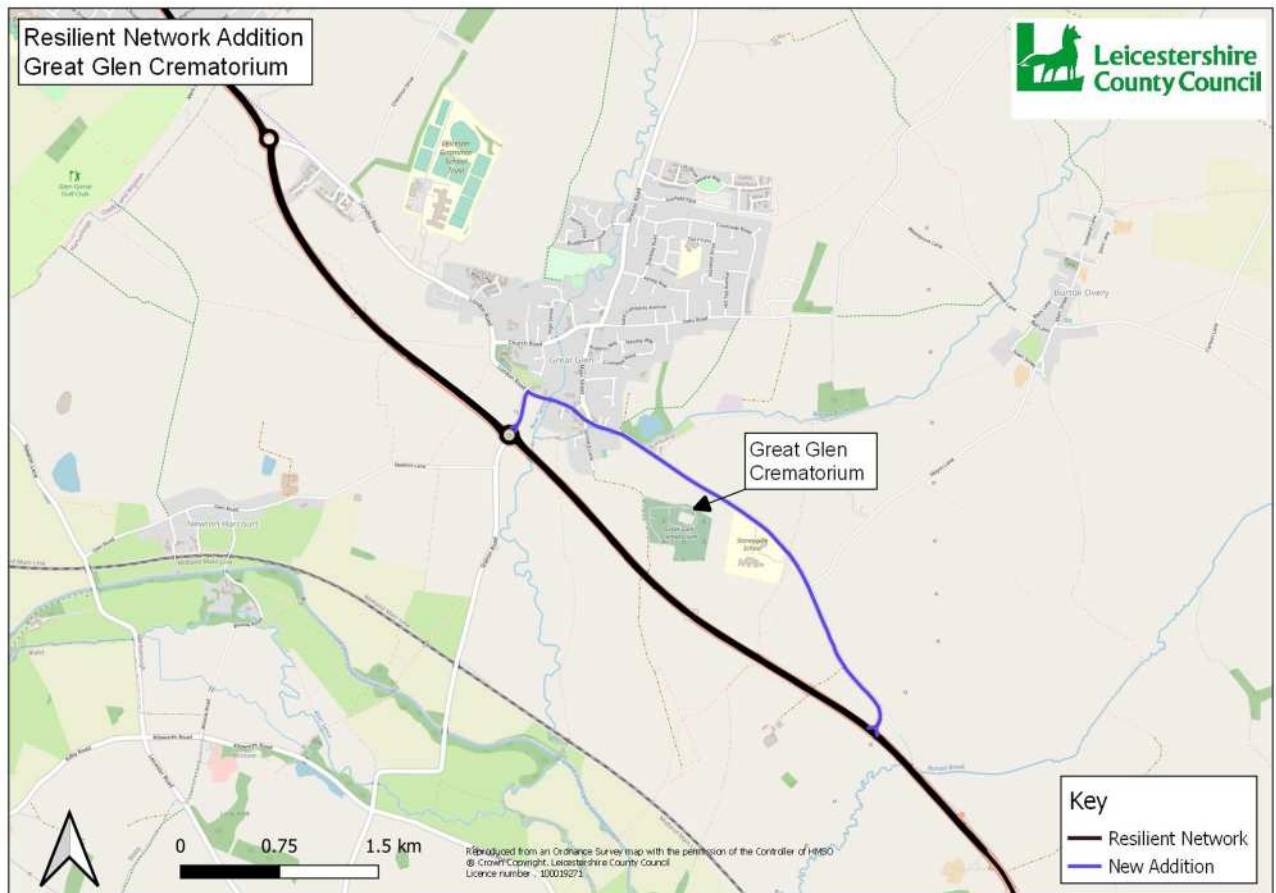


Figure 11: Resilient Network addition Great Glen crematorium

### Countesthorpe crematorium

6.4km has been added onto the Resilient Network. 2.7km has increased from a quarterly to monthly inspection and a from a Priority 2 gritting route to Priority 1.

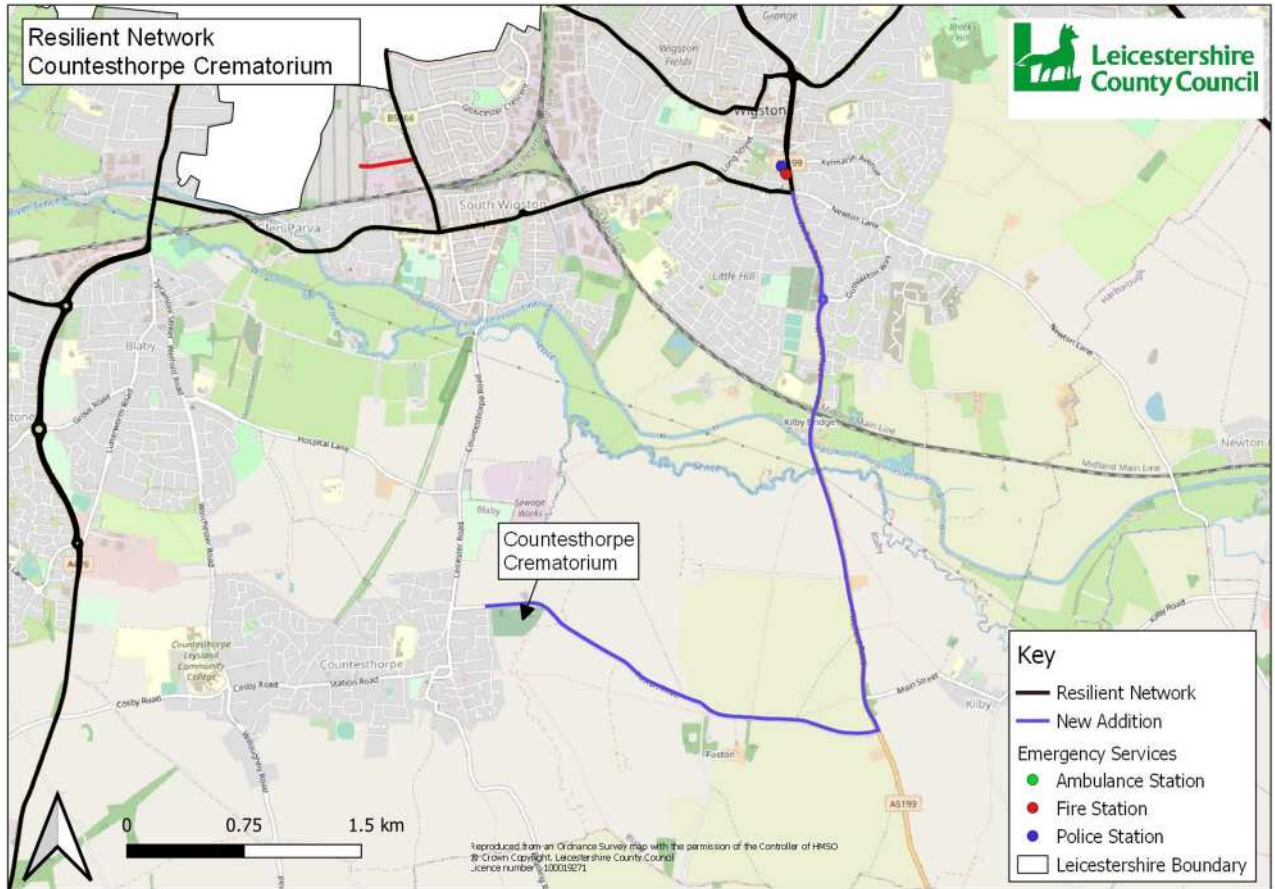


Figure 12: Resilient Network addition Countesthorpe crematorium

### Hinckley crematorium

A new crematorium is under construction just off the A47 Leicester Road in Hinckley. No action needs to be taken as the A47 is on our Resilient Network.

## 6.6 Neighbouring Authorities

Leicestershire's Resilient Network should coincide with that of Neighbouring Authorities at County borders. Liaison has taken place with the following authorities.

- Leicester City Council
- Derbyshire County Council
- Lincolnshire County Council
- Northamptonshire Council
- Nottinghamshire County Council
- Rutland Council
- Staffordshire County Council
- Warwickshire County Council
- National Highways - Area 7

The B5493 from Appleby Magna Interchange that links with the Warwickshire Resilient Network has been added. This also has the additional benefit of accessing the new Mercia Park industrial development which will support up to 3,400 jobs ([Mercia Park Construction, 2022](#)). This 2km section is already on a priority 1 gritting route and inspected monthly.



Figure 13: Resilient Network addition B5493, Appleby Magna Interchange

## 7. Removals from the Resilient Network

Upon review of our Resilient Network, three sections have been identified as no longer needed. These are listed below:

### Asfordby Business Park

There is no critical infrastructure along this road requiring it to remain part of our Resilient Network (see figure 14 below).

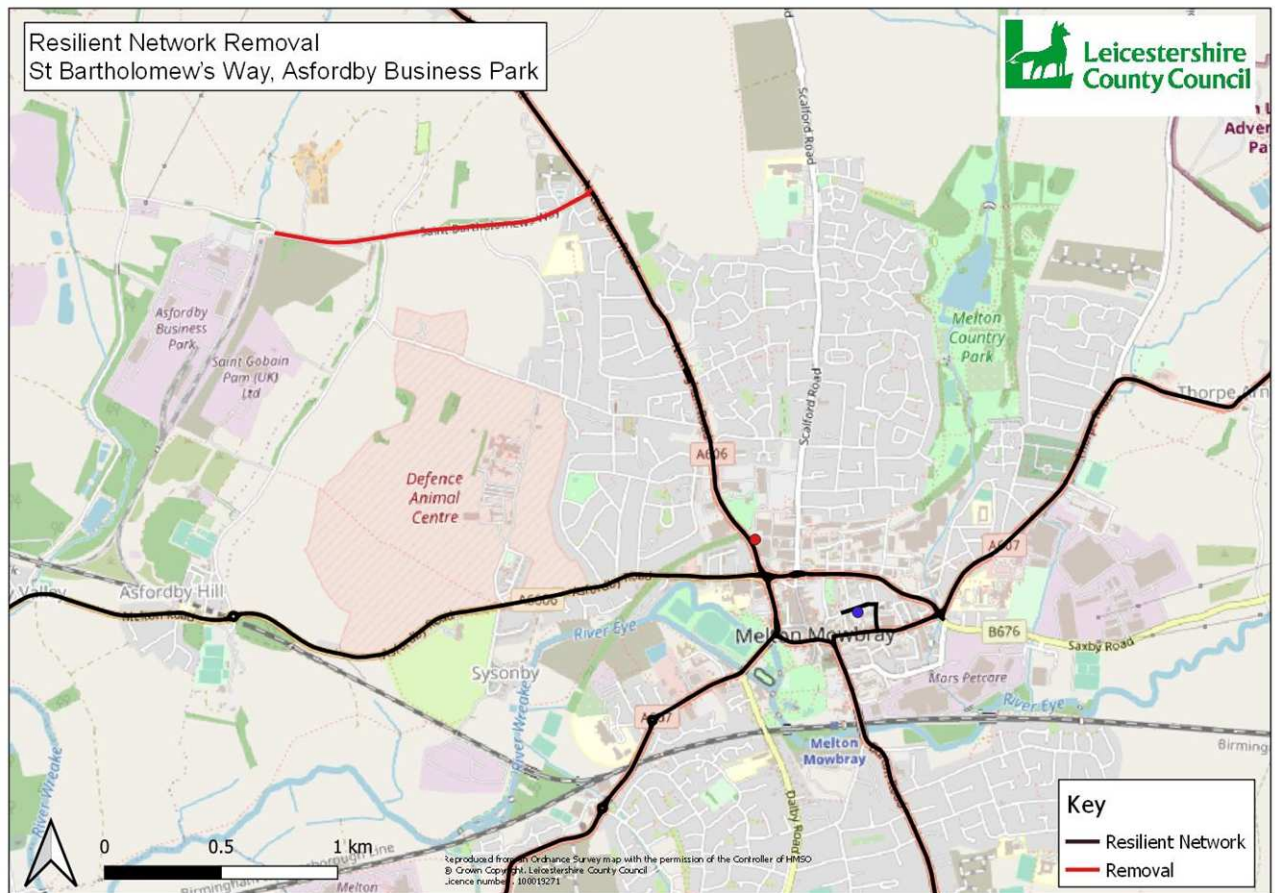


Figure 14: Removal of St Bartholomew's Way, Asfordby Business Park

### Tigers Road, Glen Parva

Tigers Road, Glen Parva was previously on our Resilient Network which we believe was incorrectly added at that time. It is an unadopted road meaning it is not publicly maintainable by Leicestershire County Council and therefore not our responsibility to maintain at public expense.

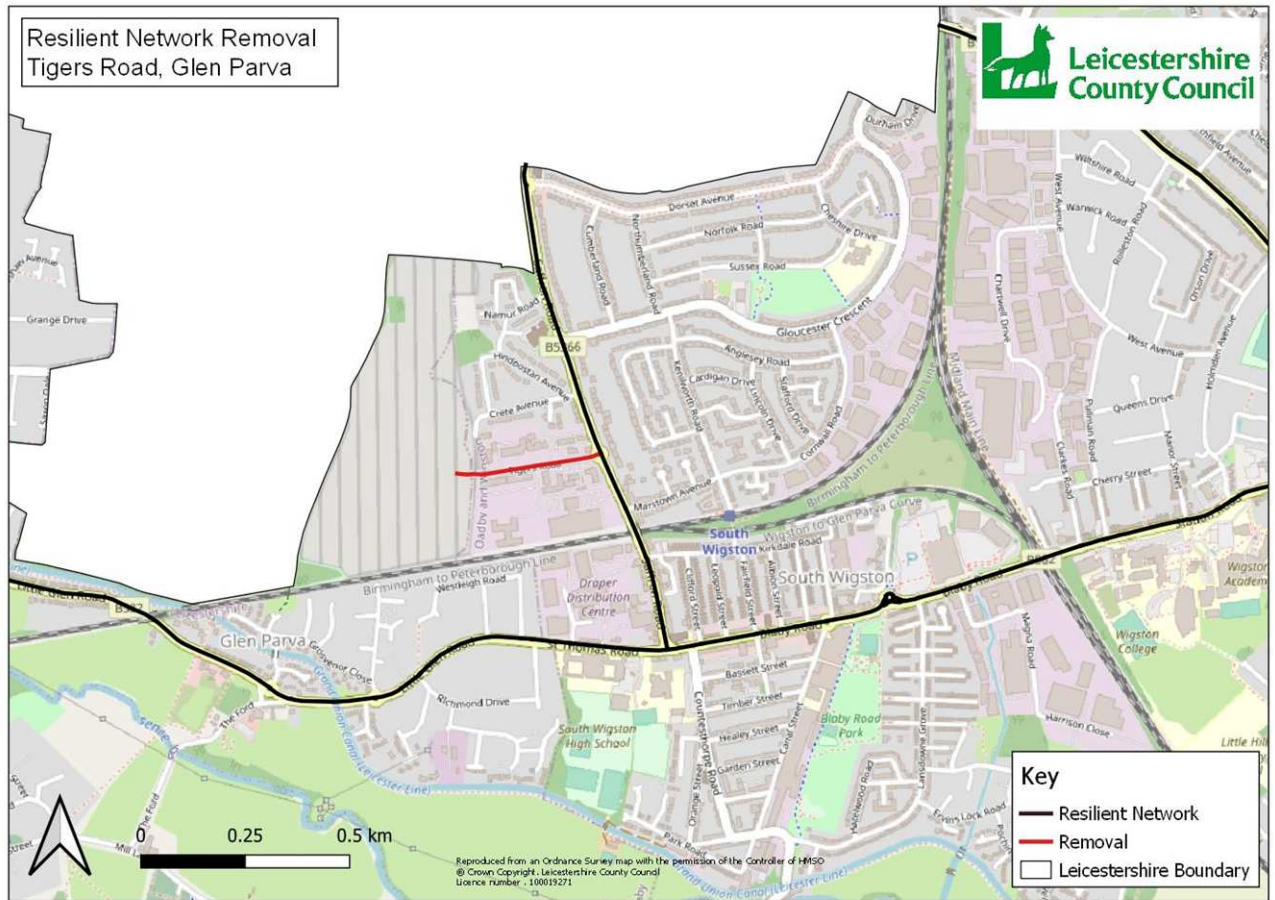


Figure 15: Removal of Tigers Road, Glen Parva

### Derby Road, Kegworth

The Resilient Network is to be diverted from Derby Road Kegworth, to follow the new Kegworth Bypass (see figure 16 below).

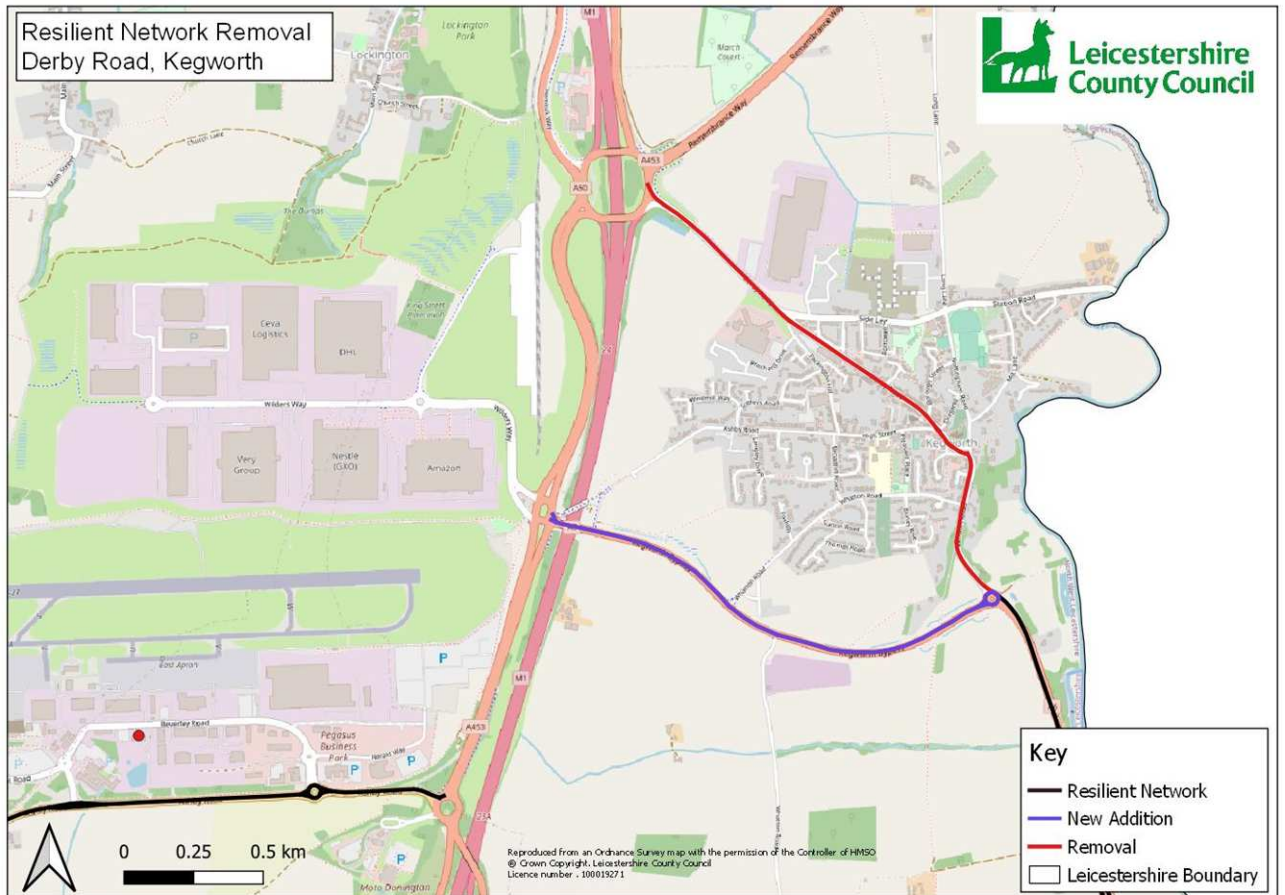


Figure 16: Resilient Network in Kegworth

## 8. Summary of Resilient Network Changes

Following this Resilient Network review and the additions and removals considered, 39.7km has been added, with 21.3km being upgraded to a from a Priority 2 to a Priority 1 gritting route, and an additional 12km added onto a monthly inspection (see tables 9 and 11 below). The new total length of our Resilient Network will be 558.7km.

<b><u>Addition Location</u></b>	<b><u>Addition distance (km)</u></b>	<b><u>Gritting Priority Increase (P2 to P1) (km)</u></b>	<b><u>Additional inspections (km)</u></b>
Broad Street, Coalville	1	1	1
Meridian East, Meridian	0.4	0.2	0.4
Fairfield Road, Market Harborough	0.6	0.6	0
Geoff Monk Way, Birstall	0.5	0	0.5
Loughborough, The Rushes & High Street/Baxter Gate	2.0	0	0
Loughborough B5350	2.2	0	0
Caste Donington, Hill Top, High Street, Bondgate and Station Road	5.1	5.1	3
Castle Donington Relief Road*	4.8	4.8	0
Castle Donington B6540 (Aldi DC)	0.8	0	0
Ashby-de-la-Zouch	3.7	1.9	0
Great Gen crematorium	2.7	2.7	2.7
Countesthorpe crematorium	6.4	2.7	2.7
Bardon Hill Industrial Estate	6.0	2.3	0
Ratby Lane, Kirby Muxloe	2.7	0	0
Kegworth Bypass	1.9	0	0
A444 ADR	3.7	0	0
B5493 Appleby Magna	2.0	0	0

Table 9: Additions to the Resilient Network

\* 3km of the Relief Road is currently prospectively maintained and will need adding once fully adopted.

Table 10 below displays the removals from the Resilient Network. They do not meet the framework criteria laid out in this document to warrant being on the Resilient Network.

<b><u>Removal Location</u></b>	<b><u>Removal Distance (km)</u></b>
St Bartholomew's Way, Asfordby Business Park	1.4
Tigers Road, Glen Pava	0.3
Derby Road, Kegworth	2.1
<b>Total</b>	<b>3.8</b>

Table 10: Summary of Resilient Network Removals

	<u>Addition distance (km)</u>	<u>Gritting Priority Increase (P2 to P1) (km)</u>	<u>Additional inspections (km)</u>
<b>Total</b>	39.7	21.3	12

Table 11: Totals Summary



# 9. Review and Governance of the Resilient Network

## 9.1 Regular Reviews

The network must be regularly reviewed to ensure that it remains fit-for-purpose. This will be achieved through a review **every 2 years**.

The review will be undertaken by the Asset and Major Programmes team, alongside the Strategy and Policy team and other key stakeholders, with the purpose of identifying and incorporating any new intelligence that may impact on the Resilient Network.

## 9.2 Governance

The Asset and Major Programmes team have ownership of the Resilient Network information. They will:

- Collect feedback on the Resilient Network and gather intelligence from other teams which may affect it
- Form a list of proposals to update the network and undertake internal consultation to confirm these as part the 2 yearly review
- Maintain a map of the Resilient Network in a spatial data file
- Publish updates on our web site and share with our stakeholders

## 10. References

Leicestershire County Council Highway Asset Management Policy (2020)

[Asset Management Policy](#)

Leicestershire County Council Highway's Asset Management Strategy (2020)

[Asset Management Strategy](#)

Leicestershire County Council Highway Infrastructure Asset Management Plan (2019)

[HIAMP](#)

Leicestershire County Council Network Management Plan (2020)

[Network Management Plan](#)

The Transport Resilience Review: A review of the resilience of the transport network to extreme weather events (2014)

[DfT Transport Resilient Review](#)

Well-Managed Highway Infrastructure: A Code of Practice (2016)

[Code of Practice](#)

The Quarmby Report (2010)

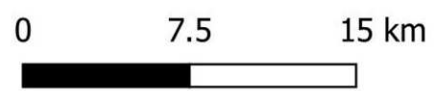
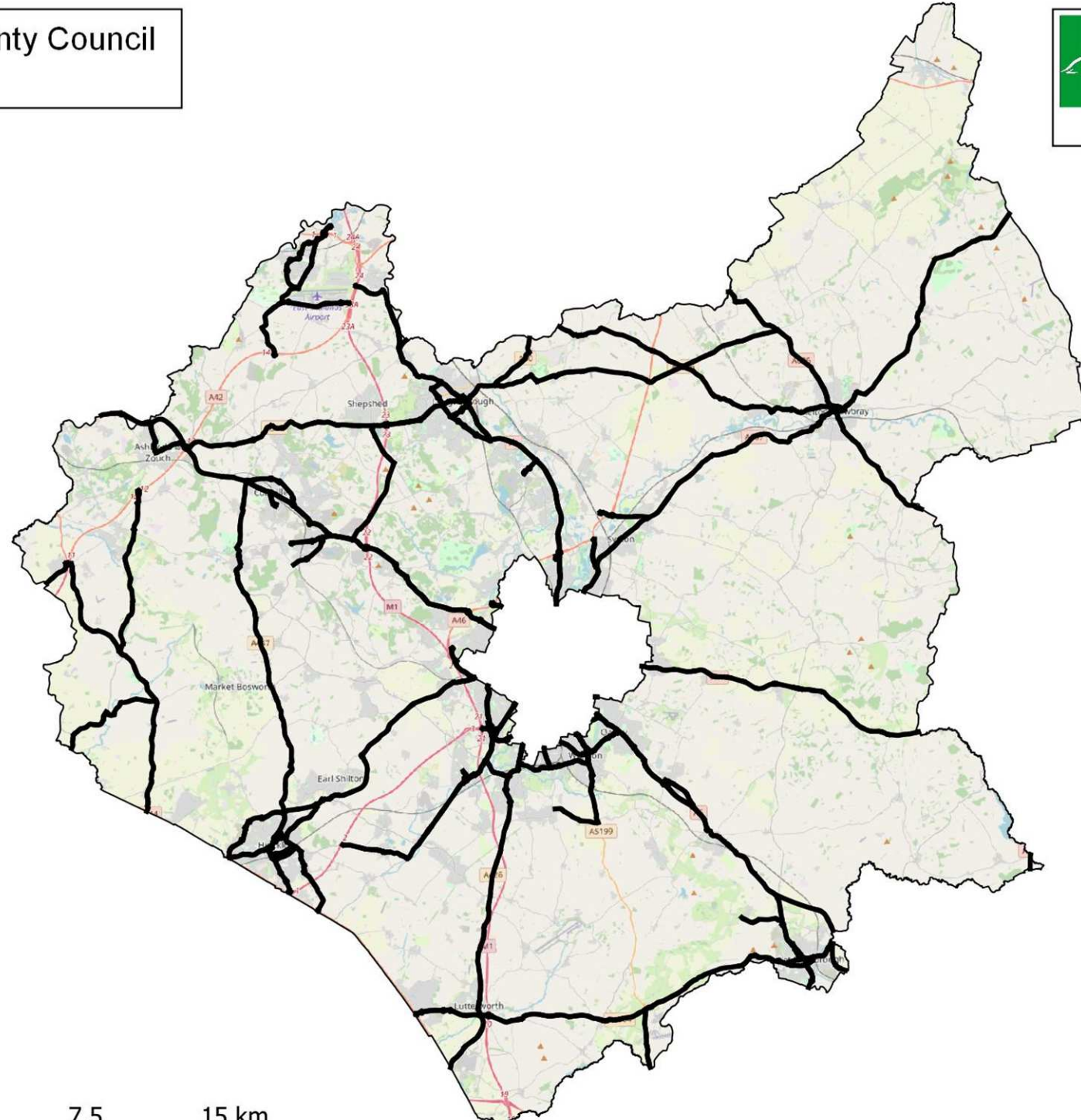
[The Resilience of England's Transport Systems in the Winter](#)

National Highways Agreed Diversion Routes

[National Highways Agreed Diversion Routes](#)

# 11. Appendix 1

Leicestershire County Council  
Resilient Network



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Key  
— Resilient Network