

**Kier Highways**

# **An Insurer's Guide to Incident Management & Claims Recovery**



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## Document Control

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This document has been produced in response to requests from insurers for greater clarity and information regarding the processing of claims. It is not intended to be a wholly comprehensive document, simply a way of explaining the arrangements that Kier Highways Limited use for incident response and subsequent repair, and how the costs for a typical incident on the network are compiled and invoiced.

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# Introduction

Kier Group acquired EM Highway Services Limited in June 2015, the company now trades as Kier Highways Limited, within the Infrastructure Services division of the business. Kier Highways Limited's annual turnover in 2015/16 is anticipated to be around £450M.

Kier Highways operate a number of strategic highways contracts on behalf of Highways England, Transport for London and other local authorities for the management and maintenance of the strategic and local road networks. Our goal is to maintain these nationally important highway assets in a safe, serviceable condition, whilst ensuring goods and people can move freely to support economic growth and prosperity. We aim to achieve this in the most cost efficient way possible, whilst ensuring that our own workforce and the travelling public are not placed at risk.

We pride ourselves on delivering quality repairs in a timely fashion, particularly when responding to incidents. We believe that public safety is paramount, and act accordingly in our response to incidents and their subsequent repairs. Working on the high speed motorway and trunk road network requires highly qualified staff and specialist resources to maintain traffic flow and safety. Every effort is made to ensure that this is done in the most efficient way.

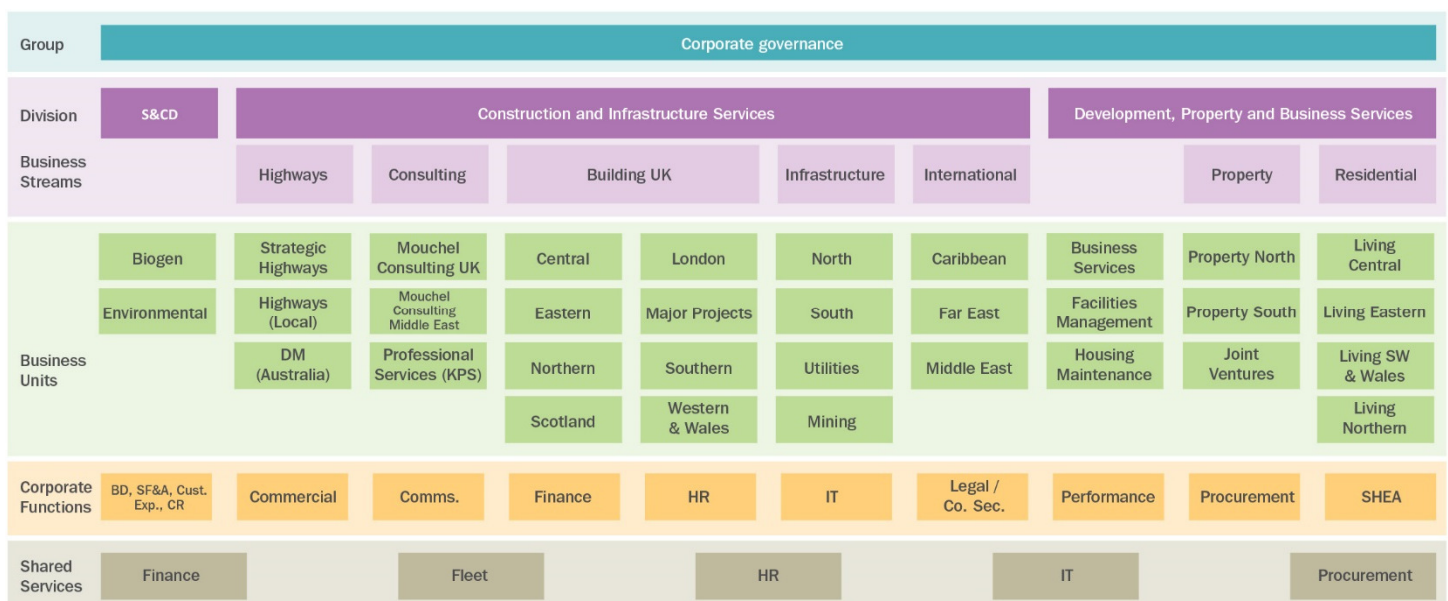
We work closely with our clients to provide support for the travelling public by ensuring the safe operation of the highway, and smooth flow of traffic. Generally, our contracts cover a broad range of maintenance and improvement works, both in respect of planned, longer-term activities, and shorter term reactive repairs and response, as well as network management functions.

Planned activities can vary from small scale investigations and repairs of highway assets, right up to multi-million pound major resurfacing or network improvements. Reactive works generally include smaller scale repairs of the network to maintain safety and traffic flow, often identified through our proactive inspection of the network on a regular basis. In addition, we also respond to incidents and the resolution of small scale damage to highway assets. Our duties include ensuring that any incident occurring on the network is swiftly attended, resolved and traffic flow returned to normal, followed by the permanent repair of any damage sustained with minimal further disruption.

The contractual arrangements in place with our clients require us to recover costs associated with incidents and their permanent repairs for the majority of cases. This requires us to develop good relationships with insurers, to ensure the swift resolution of claims, when appropriate. Claims represents less than 3% of our total activities.

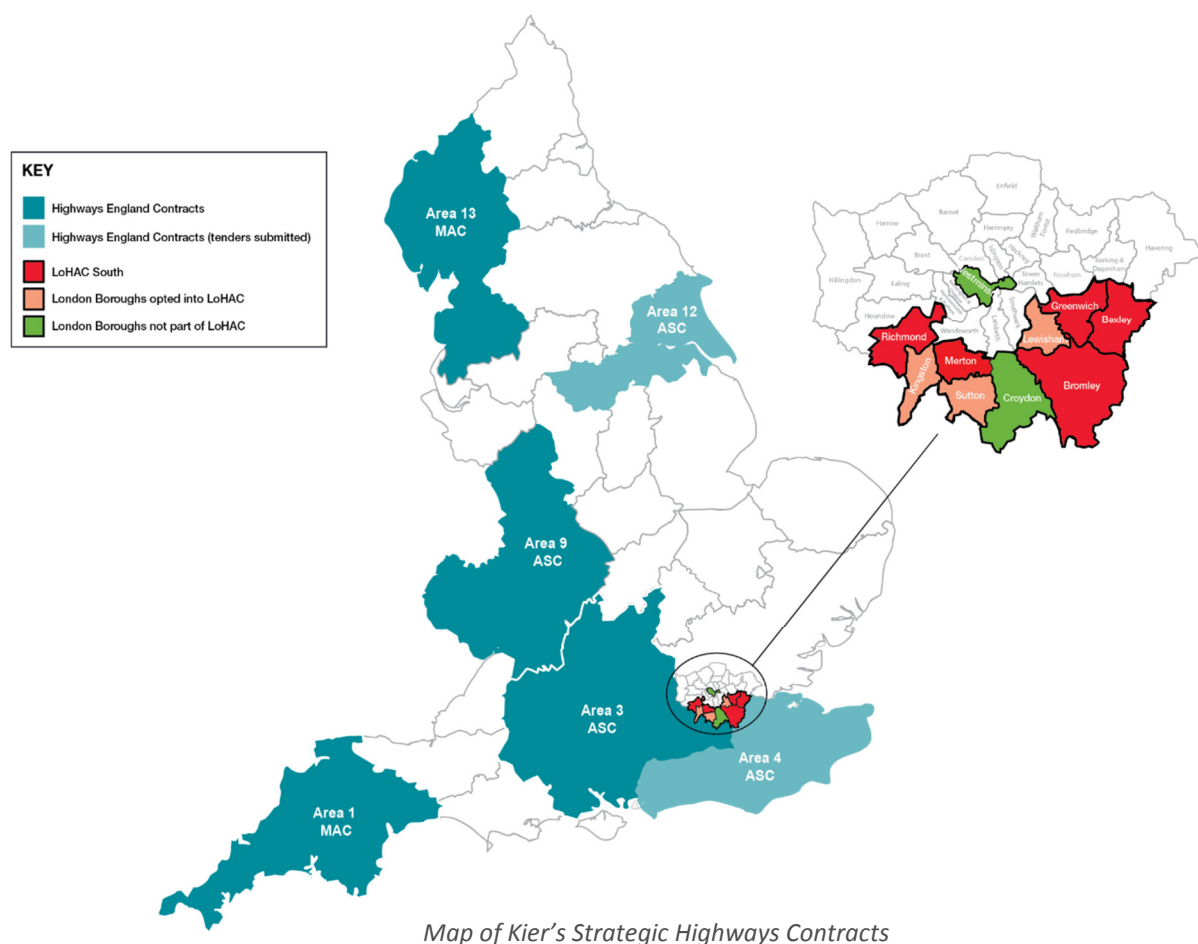
Owing to the volume of claims that we receive, we have a team of 15 dedicated staff operating from our Hook office in Hampshire. They are available to contact to discuss any queries that you may have with invoices, and can be contacted at [dcplclaims@kier.co.uk](mailto:dcplclaims@kier.co.uk) or on 01962 892699.

This document should provide a better understanding of the Kier Highways approach to handling the complexities of highway management and, in particular, how we handle incidents on some of the busiest strategic road in the country. Should you wish to understand our operations in more detail, please let us know via the contact details above, and we would be happy to offer you the opportunity to meet and even view our works.



Kier Operating Model

## Our Strategic Highways Contracts



Our contracts cover more than 3,500 miles of road and a population of around 14 million people, who are key stakeholders in the services that we deliver, both in terms of safety and reliable journeys.

**Highways England** – responsible for managing around 27.6% of the country's strategic road infrastructure (motorways and trunk roads), including:

- Area 1, covering 369 km in the South-West, was operated by EM Highways from 2006 to 2010, and is now a managing agent contractor (MAC) contract that has been operated successfully since July 2010. The total contract value is approx. £116M
- Area 3, covering 517km in south-central, was operated as a MAC by EM Highways from September 2008 to June 2013, when it was changed to an Asset Support Contract (ASC) by the Highways Agency and we continue to manage this network. The total contract value is approx. £818M
- Area 9, covering 811km in the West Midlands including Birmingham, was awarded to EM Highways in

December 2013 for 5 years. The total contract value is approx. £846M

- Area 13, covering 415km in the North-West is a MAC that we have operated since July 2010. The total contract value is approx. £172M

**Transport for London** – responsible for managing around 33% of London's strategic road network, including:

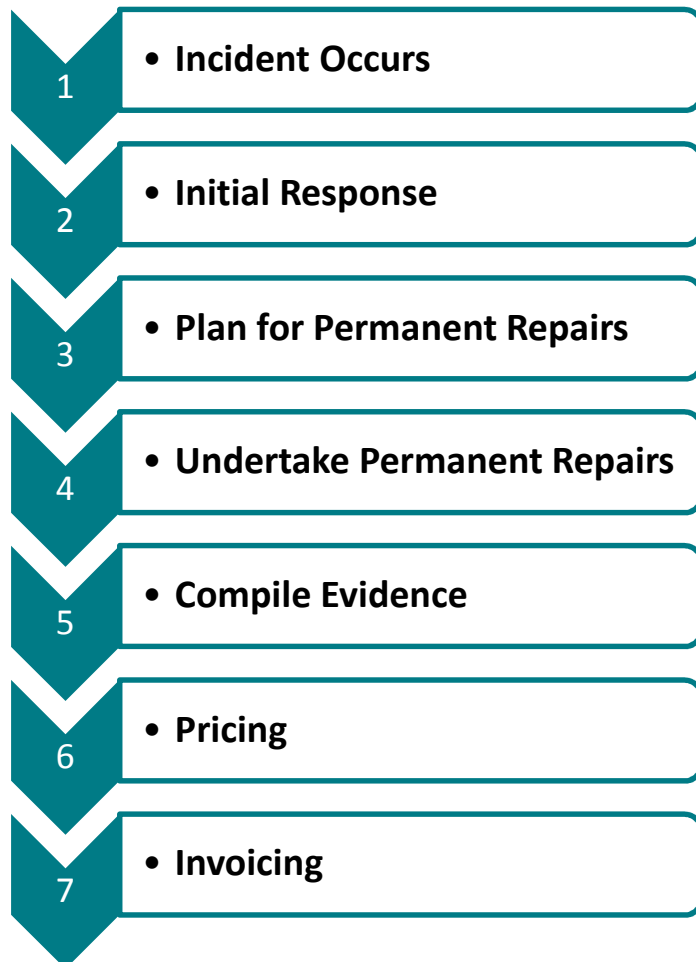
- London Highways Alliance Contract (LoHAC) South Area, covering all of the strategic roads within the south London Boroughs operated by TfL. The total contract value is approx. £527M
- Royal Borough of Kingston, covering all roads within the borough under the LoHAC contract

**London Borough of Croydon** – responsible for managing all local roads within the Borough on a standalone contract with a total contract approx. £45M over 4 years.



# Incident & Claims Management Process

Incidents and claims on the highway network can take a variety of forms, from simple barrier or sign damage, up to larger scale accidents affecting multiple lanes, or even closures, and resulting in the need for resurfacing of the carriageway or other larger scale repairs. They all, however, follow a general cycle of events:



The following section sets out further details for each of these steps, including the activities undertaken and an indication of the likely resources involved.

## 1. Incident Occurs

An initial report of an incident is often received by us via emergency services, Highways England's Traffic Officer Service, but may also come in through customer contact or other reports. This contact is received by our Network Control Centre (NCC) and action taken accordingly. More details about the operation of our Network Management function can be found in Appendix A.

Our NCC will produce an incident response plan, based upon the information received. This will assess the incident, and decide upon an appropriate response. Not all incidents will involve an emergency response to the scene immediately, as each scenario is assessed based upon the risk presented by damage to the highway assets and location of any debris. In the event that no immediate response is required, then arrangements are made to assess the damage and arrange appropriate repairs in due course, as set out in Step 3 below.

### Typical Resources Used:

- NCC Operator(s), as appropriate to the scale of the incident
- NCC Supervisor



*Incident on M3 J3-2 in April 2015 resulting in closure of the eastbound carriageway through a section of major roadworks, requiring clean up and treatment of a large diesel spillage*

## 2. Initial Response

In the event that an emergency response is required, we will despatch an Asset Incident Watchman (AIW) or Emergency Response Unit (ERU) to visit the location, liaise with emergency service or Traffic Officers in attendance, and coordinate our response to clear the incident (See Appendix B for further details). The AIW/ERU undertake a much more comprehensive role than previously used Incident Response Unit (ISUs), as they effectively act as network custodians. As such, the AIW/ERU also act as a local controller on site and, for larger scale incidents, will form part of a wider plan involving other parties and services, as part of a cross-agency deployment.

Upon arrival on site, the AIW/ERU will ensure that the initial response is instigated and the incident site made accessible to whatever services are required. They then concentrate on supporting the other services present, provide any manual repairs possible (e.g. temporary fencing) and continue with the management of traffic and development of signing and diversions, as required. Once the emergency or other services have completed their work, the AIW/ERU then remove the temporary traffic management and any diversions used, and can declare the site temporarily safe, in advance of permanent repairs being undertaken.

Our operations are provided 24 hours a day, 7 days a week, 365 days a year and involve different bands of charges. By way of example, the table opposite sets out the bands that we use for our AIWs on the Highways England contracts, together with an explanation of the multiplying factors that would be applicable. Similar arrangements are applied on other contracts, and details will be provided of these, as appropriate. Clearly, the timing of an incident will incur these charges, as appropriate.

Day of the Week	Time of Day	Multiplier
Monday to Friday	0800 – 1700	1.0
Monday to Thursday	1700 – 0800	1.5
Saturday & Sunday	0800 – 1700	2.0
Friday to Monday	1700 – 0800	2.5
Bank Holidays	0000 – 2359	2.5

Once the incident is fully resolved, and any emergency services have vacated the site, the AIW/ERU will arrange for appropriate temporary repairs to be undertaken to ensure the safety of the site until such time as the permanent works can be completed. The site will then be cleared and any temporary traffic management removed, ending the initial response to the incident.

#### Typical Resources Used (subject to extent of incident):

- Asset Incident Watchmen/Emergency Response Unit to attend and manage the incident
- NCC Operator(s)/Supervisor to coordinate
- Operational Resources to carry out the clear up
- Temporary Traffic Management for safety

For smaller incidents, not necessarily involving emergency services or Traffic Officers, the same process is followed, albeit the AIW/ERU is able to effect repairs more quickly, as they do not need to wait for the site to be cleared by other parties.

Whilst not formally part of the initial response, there is often an additional impact as a consequence of an incident, in that it may affect other works planned on the network for that day. This takes the form of either diverting resources away from a work site to attend the incident as it happens, or by affecting a part of the network where works were planned to be undertaken in the following few days. Network availability is a key driver for our clients, to ensure the smooth flow of traffic, and so we will often have to reschedule planned works as a consequence of an incident. If that is the case, we will seek to recoup abortive costs as part of our claim.



*Incident on M4 J12-11 in April 2015 resulting in closure of the eastbound carriageway and Lane 3 closure on the westbound due to extensive barrier damage. This type of incident will often have indirect effects to other planned works in the area, given the extended time required to effect repairs*

### 3. Plan for Permanent Repairs

Following completion of the initial response, there is often a need to follow up with permanent repairs of the damage that was sustained to the highway. This is generally arranged through the Asset Incident Watchmen (AIWs) or other engineers, who will visit the site again at a more convenient time to re-inspect the area and identify and quantify repairs. They will then arrange for the repairs to be undertaken using our in-house resource or sub-contractors, as appropriate to the nature of the works.

These repairs may involve specialist design, in the event of damage to complex elements of the highway, and all will require coordination with other planned works on the highway network, to avoid clashes of signage and delays to the travelling public. As previously stated, network availability is very limited on the strategic road network, which can lead to an extended timescale for the final works to be undertaken.

All permanent works are required to comply with current design and safety standards at the time of repair.



*Example of permanent works*

#### Typical Resources Used:

- Asset Incident Watchmen or engineers to assess and identify repairs
- Specialist design resources, if required to support
- Network Control Centre to coordinate and book roadspace
- Commercial resources, as appropriate to procure sub-contractors and identify costs

### 4. Undertake Permanent Repairs

Permanent repairs will be undertaken sometime after the initial incident occurred, depending upon network availability and timescales for any design required. They will almost certainly require the provision of temporary traffic management (Appendix C) to allow them to be undertaken safely, and they may also need to be undertaken at night, to avoid undue impact on the travelling public. This will very much depend upon the traffic sensitivity of the highway network at the location involved.

Appropriate resources will be utilised to undertake the works, which may include the use of specialist sub-contractors. In this case, we will use our established supply chain and raise appropriate orders for their safe completion. This will involve appropriate commercial resources from our local contract team to ensure costs and payments are processed accurately and in a timely manner.

#### Typical Resources Used:

- Asset Incident Watchmen or engineers to monitor and supervise the works
- Network Control Centre to coordinate and book roadspace
- Operational Resources to carry out the work
- Temporary Traffic Management for safety
- Commercial resources, as appropriate to manage sub-contractors, record costs and payments
- Administrative resources, as appropriate

### 5. Compile Evidence

A range of evidence is collected from the various resources involved in the initial response and subsequent permanent repairs set out in Steps 1 to 4. This can include Police reports, photographs, work sheets, time records, incident forms, etc. These records identify the resources employed at the various stages and enable us to compile a complete picture of the incident and its subsequent repair. Standardised forms and processes are used to ensure consistency and accuracy of the records received.



## Typical Resources Used:

- Asset Incident Watchmen or engineers to provide details of works undertaken
- Financial Recovery Team (Pricing) – Appendix D
- Administrative resources, as appropriate

## 6. Pricing

Through our Standard Pricing Model we identify the costs associated with the response and repairs, based upon the records and evidence available. We then apply fees to our costs for other, less specific, management and supervisory resources, as explained in Appendix D.

Whilst the standard pricing model can cover the majority of eventualities, there are other factors and issues that may still need to be considered within the final pricing of a claim. For example, if works are planned to be undertaken on a section of road at night, to minimise disruption to traffic during daylight hours, and then that section of road is affected by an incident caused by a third party in the evening period, it is highly likely that the works will be cancelled to facilitate completion of the incident response.

This may then mean that the planned works are delayed for some time, until they can be re-programmed to minimise further disruption, resulting in abortive costs and potential contractual compensation to sub-contractors for the disruption caused. Given that this additional cost is outside our control, and directly attributed to the incident concerned, we would seek to recoup our losses from the third party identified as liable for the incident.

Permanent repairs to previous incidents also have the potential to be affected in this way, which often results in delays in their final completion, and subsequent invoicing to third parties. Every effort is made to undertake these works as quickly as possible following the initial incident response; however, the nature of the network and constraints under which we must operate road space bookings sometimes lead to extended periods before final repairs can be undertaken.

## Typical Resources Used:

- Financial Recovery Team (Pricing)
- Administrative resources, as appropriate

## 7. Invoicing

The invoice that we provide is split into three sections, generally following the incident management process.

We aim to provide backup details for the invoice, but are also happy to respond to any queries via e-mail or our dedicated claims enquiry number ([dcpcclaims@kier.co.uk](mailto:dcpcclaims@kier.co.uk) and 01962 892699).

Further details are set out in Appendix E.

Invoice		KIER				
<b>Invoice Address</b> Add invoice address here		<b>Invoice Date</b> 00 January 1900 <b>Invoice Number</b> XXXX <b>Payment Date</b>  <b>Account</b>  <b>Ref</b> 				
		Kier Highways Limited Address line 1 Address line 2 Postcode  Tel: xxxxxxxx Fax: xxxxxxxx <a href="mailto:sales.lodger@kier.co.uk">Sales.lodger@kier.co.uk</a>				
Item	Quantity	Description	Price	VAT	Value	
			0.00	0.00	0.00	
					Sub Total	0.00
					VAT	0.00
					Total	0.00
This invoice is due for payment on or before: xxxxxx						
Payments by cheque should be sent to: Kier Highways Limited Address 1 Address 2 Address 3 Address 4 Postcode Tel: xxxxxxxx <a href="mailto:sales.lodger@kier.co.uk">sales.lodger@kier.co.uk</a>			Payments direct to bank made to: Bank Name Address 1 Address 2 Address 3 Sort code: 60-23-07 Account: xxxxxx			
Registered office: Templeford Hall, Sandy, Bedfordshire, SG19 2BD VAT No. 900540375 Registration No. 05606089						

*Example of standard invoice layout*

## Typical Resources Used:

- Financial Recovery Team (Pricing)
- Financial Recovery Team (Credit Control)
- Administrative resources, as appropriate

## Appendix A – Network Management

As part of our role under the contracts with Highways England, we manage all activity undertaken on the motorway and trunk road network within our area. This includes our own works and response to incidents, which are governed by a range of constraints and rules. Small incidents on extremely busy and congested routes, such as the M3, M27, M42 & M6 can clearly have a significant impact. We also manage the A3 Hindhead Tunnel, which brings yet further challenges in respect of road space management and response to incidents.

Transport for London operate a permitting scheme for completion of works on their network, and we are required to comply with this for all of our activities. Access to the network in London is extremely restricted, and a permit is required to be granted for everything other than an emergency. Many of the routes that we manage are extremely congested and very sensitive to incidents, particularly if they involve the Blackwall Tunnel, which falls within our remit.



*Highways England Area 9 Network Control Centre*



*A3 Hindhead Tunnel in Highways England Area 3*

## Appendix B – Asset Incident Watchmen (AIW)/Emergency Response Unit (ERU)

Our AIWs play a fundamental role in service delivery on Highways England contracts, being the front line in our response to incidents and rectification of any resulting damage. They are effectively the custodians of the network, responsible for managing a section of the strategic route and ensuring that it is kept in a safe and operable condition, with the minimum of disruption to the travelling public. ERUs operate in a similar fashion within our Transport for London and local authority contracts.



*Highway England Area 3 AIW vehicle*

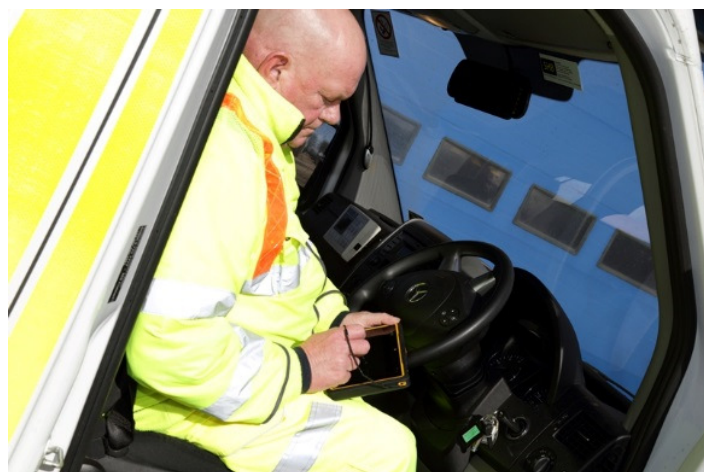
As set out in the general incident process above, AIW/ERUs become involved in incidents when the Network Control Centre identify that an incident has resulted in an unacceptable hazard on the network, most likely due to debris or damage to some aspect of the highway. Their initial response will be to immediately visit the site and assess the damage for themselves, as reports received from other parties are often not accurate and lack the technical knowledge possessed by the AIW/ERU. This immediate visit can clearly occur at any time of day, and we therefore operate a stand-by system to ensure that we retain 24 hour cover, 7 days a week, 365 days a year. Typically, AIW/ERUs spend around 2 hours dealing with the initial incident at the scene, although this can clearly vary depending upon the severity and extent of traffic management and repairs required.

Once the initial incident is made safe, the AIW's next role is to revisit the site at a convenient time, usually during daylight hours over the next few weeks, to assess the damage sustained and identify what works are required to be completed. In London, this may fall to another member of the reactive team, owing to the way that this contract operates. At this stage, if they feel that more specialist elements of the highway may have been damaged, they will call in additional, specialist resources to consider the best approach. This may include structures, signs, gantries, lighting and signal equipment.

The assessment of repairs and design input will need to be coordinated alongside the planning and programming of the works on the network. The strategic road network, by its very nature, carries very high volumes of traffic, often over long distances, and is therefore very carefully managed in terms of disruption and any reduction in capacity. Most sections of the network require any works involving reduced lanes to be undertaken out of peak hours, to minimise disruption, and for many of the busier sections, this means overnight working. The AIW therefore needs to work closely with the Network Control Centre to plan and coordinate any repairs as part of the wider network needs. This can prove particularly challenging where incidents occur near to major roadworks sites, which are already affecting traffic flows and therefore subject to additional restrictions.

Finally, once all planning, programming, and design has been completed, the works themselves can be prepared and instructed, either for delivery through in-house resources or using sub-contractors. They will then be undertaken and supervised, as appropriate. Overall, the AIW or local engineer typically spend another 2 hours completing this phase of repairs, although this can clearly vary dependent upon the extent of works and location.

The final task undertaken is to review the completed works and ensure that they have been undertaken as expected and close them down within the client's asset management system. This typically takes around a further hour of their time.



*AIWs also use mobile technology to assist them in planning and recording works*



## Appendix C – Temporary Traffic Management

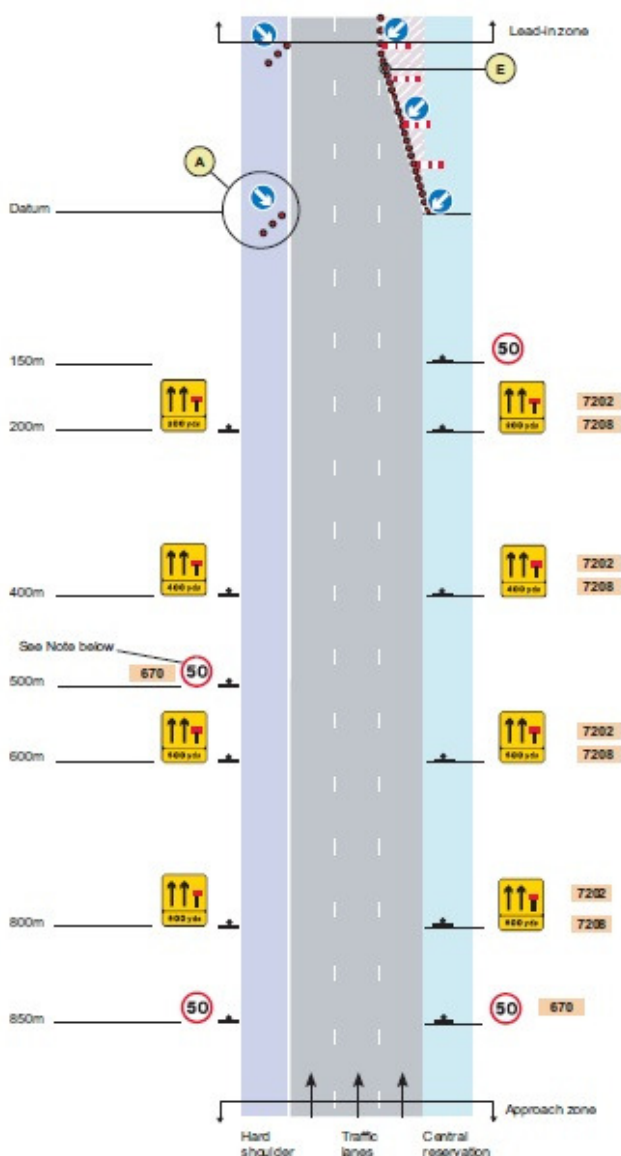
All works undertaken on public highways involve some form of temporary traffic management to provide and maintain a safe working environment for the operatives, and to segregate and safely divert live traffic from the area. On dual carriageway trunk roads and motorways, this can often represent a considerable proportion of any costs incurred to react to the immediate incident and also to undertake any follow up permanent repairs at a later date. Given this, the following section sets out some further details on this important safety related area of work, so as to provide a better understanding of the scale of planning and operational resources involved.

Temporary traffic management is governed by standards set out in Chapter 8 of the Traffic Signs Manual, to ensure consistency and compliance with the adopted Traffic Sign Regulations & General Directions. Installation, maintenance and removal is further governed by Scheme 12 of the National Highway Sector Scheme, to ensure that it is undertaken correctly and safely. All of our traffic management operatives and sub-contractors are fully conversant with these standards and compliant with the appropriate accreditation, which involves regular update training and re-accreditation.

Temporary traffic management is designed to provide appropriate safe working areas for operations to be undertaken and, as such, incorporates lateral and longitudinal safety zones, as well as lead-in tapers when lanes are being closed. These requirements often mean that temporary traffic management affects a significant length of network, even though a repair may actually only be a few metres long. These safety zones and tapers are defined within Chapter 8, dependent upon the prevailing speed of the network and, given the national speed limit on Motorways and dual-carriageway trunk roads of 70mph, means a minimum length of 400m of coned off area for a simple single-lane closure. In addition, the high speed nature of the network requires extensive advanced signing and illumination to ensure clarity for approaching drivers (see image 8 above).

Another element of temporary traffic management that is not always evident is the size of the cones and signs used. For high speed roads, such as the majority of the Highways England network, cones are typically 1m in height and signs generally 1.2 or 1.5m in height/diameter. A simple single-lane closure on a motorway typically involves the use of around 160 cones and 25 signs, with more complex layouts requiring considerably more. Lanterns are also used on cones, to assist in delineating them at night or in poor lighting conditions, and the above example would require around 35, including special linked ones for the taper to help ensure that traffic approaching the cones have the best visibility possible.

Installation of the temporary traffic management itself is also a hazardous activity and, as such, precautions are taken, and controls imposed, to ensure this is undertaken correctly. This normally involves the use of rolling road blocks, crash cushions and other initiatives, all of which require additional specialist resources and associated costs. Highways England and Kier Highways Limited are expecting to remove the crossing of live carriageways, as part of an enhanced drive to improve road worker safety. This approach requires the installation of temporary traffic management for all works on the network, but greatly enhances the safety of road workers, by removing the risk



Chapter 8 layout showing the approach signing for a standard Lane 3 closure on a motorway

of impact with fast moving traffic. Highways England have set requirements that all carriageway crossing will be avoided, and have set up measures to ensure that this happens and is embedded as standard practice in future.

Whilst the majority of the strategic route network is dual carriageway, we are also responsible for the management of some single carriageway roads. Temporary traffic management on single carriageway roads is generally less extensive, and can include more active traffic control, such as traffic signals or Stop/Go boards. However, it can also be quite complex, as side roads, pedestrians and other vulnerable road users are often present, and require managing safely through the works.

Overall, temporary traffic management is a key element of all works undertaken on the motorway and trunk road network. This section can only give a very brief overview of what is involved, but hopefully allows for a better understanding of the complexities involved in dealing with the initial incident, as well as follow up repairs.



*Installation of Temporary Traffic Management underway utilising two Impact Protection Vehicles (crash cushions) to protect the workforce during sign and cone deployment*



*Typical traffic management layout in operation at night, including enhanced signed as part of our aiming for zero carriageway crossings campaign*

## Appendix D - Management Resources

In order for Kier Highways to effectively manage all of their responsibilities under our contracts with Highways England, Transport for London and the London Boroughs, there is a clear management and governance structure in place. This is summarised below, in order to provide a general understanding of the resources employed and their involvement in our ability to manage incidents.

Operational Management encompasses internal management and supervisory resources necessary to ensure that all systems, processes and procedures are in place and followed in the delivery of services, including initial incident response and completion of permanent repairs in due course:

### Management Resource

- Oversee the contract and ensure appropriate plant, labour and materials are available to meet contractual requirements and maintain a safe and reliable network. They also oversee the procurement of sub-contractors, ensuring that they meet with quality and health and safety expectations for working on a high speed strategic road network. This resource also includes appropriate administrative support, premises, IT systems, software and other technology involved in the management of engineering and maintenance activities.

### Supervisory Resource

- Oversee the day to day operations of operational resources, including the AIWs, and assist in the management and capture of information in relation to incidents and permanent repairs. They also manage and coordinate works through sub-contractors and by directly employed resources, ensuring safe and efficient operations, administration of records and capture of financial information.

In addition to these general resources, Kier Highways Limited also operate a specialist team to deal with the incidents involving liability by others on the network. The Financial Recovery Team are dedicated to collecting and collating details of all incidents involving damage to crown property, and seeking to recoup this from those deemed responsible. The team consists of around 14 people, covering the collation of documentation, liaison with AIWs, pricing, processing and collection of claims for all of the Kier Highways Limited's contracts. They are split into two key functions: Pricing and Credit Control. Typically, the team deal with around 5,400 (green) claims for damage to crown property a year.

The pricing of these resources is covered under a fee element, applied to actual costs attributed to a particular claim. This fee enables a reasonable assessment of the over-arching costs from within each contract to be made and applied within the final invoiced value.

## Appendix E – Invoice Breakdown

The details set out below cover the general arrangements that apply to most claims, and should be read in association with the documentation that we will provide to you as part of the claim pack, which contains specific information and records relating to the particular claim.

### Initial Incident Attendance

- Logging of call from emergency service or other communication route by our Network Control Centre team, and their ongoing assignment to oversee the incident until it is resolved
- Production of Incident Response Plan and identification of appropriate action, as assessed against our risk assessment process
- Implementation of the plan by the AIW/ERU, including planning and temporary traffic management to enable safe access for emergency services and immediate repairs by our crews
- Rectification of the immediate incident using appropriate resources, as necessary, to enable safe operation of the area of the network affected. This may include a mechanical sweeper, gully sucker or other specialist plant, as necessary
- Collection and disposal of any waste material, including treating any spillages in an environmentally appropriate manner
- Formal closure of TIRP and completion of appropriate records
- Assessment of knock-on impact of incident on any planned works that have been scheduled on the network, and potential rescheduling costs that may result from abortive actions

### Planning and Programming Permanent Repairs

- AIW post incident review of damage and assessment of appropriate repairs to reinstate all highway assets to full operation (i.e. safe and compliant with specification)
- Whilst simple repairs can be managed through the AIWs, in the event of structural or electronic infrastructure being damaged (e.g. tunnel, lighting, gantries, communications equipment, safety fence, traffic signals), we will need to employ specialist resources to ensure compliance with national and international standards. This can significantly increase costs, as professional qualified resources may well be required

- Planning and programming of works, including coordination with other works and reservation of road space. This may also include engagement with neighbouring highway authorities, in the event that their networks would be affected. Opportunity may also be taken to incorporate repairs within already planned works, to help minimise disruption
- Booking of road space, ensuring no clashes with other works planned on the network. This can sometimes mean a delay in completion of permanent repairs, particularly if the incident occurred within other long term roadworks, where greater restrictions are in place
- Commercial resources will be involved in the procurement of sub-contractors and the valuation of works to be undertaken

### Permanent Repair Works

- Permanent Repairs are undertaken by in-house resources or through sub-contractors, as appropriate to the nature of works required
- Provision of plant and materials required to complete the repairs at the appropriate time and location to maintain safety and access to the work site. This will almost always include traffic management crews and the provision of welfare facilities for the workforce undertaking the repairs
- The NCC will also be involved in confirming the works being carried out on the day, and updating Highways England's Schedule of Roadworks, which is a contractual requirement
- Commercial resources will be involved in the measurement of works and payment of suppliers
- Post completion of the works, they will be revisited by the AIW to ensure that they have been undertaken as expected, and that the network has returned to normality