



Street Works **Made Smart**

The world is how we shape it

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Streetworks in the UK

Street works are distinct from other road works completed by highways authorities. They are generally undertaken by utility companies (e.g. water, electricity, gas and telecommunications) to install, repair and maintain their services. The key challenges these organisations face when undertaking street works is that much of the equipment, pipes, and cables they need to repair, renew or install are placed underneath the surface and require frequently digging up roads each time a project needs to be completed.

It is estimated over 4 million utility excavation works (street works) are carried out annually in the UK and it costs over £7bn per annum to the UK economy. In many cases, the utilities works are completed to a high standard and within the expected timeframes. But even in such circumstances the works can cause delay and disruption on the road network for other road users.

Any delays can be aggravated when street works overrun or are mismanaged. Previous studies estimate that the cost of congestion resulting from street works is £4.3 billion a year to the UK economy. If street works are mismanaged the strain already placed on UK road networks and local authority road maintenance budgets can run into millions of pounds in terms of lost productivity, environmental and social impacts. The 2018 AIA ALARM(1) survey discovered that local authorities are spending an average of £1.3m (11% on average) of their carriageway maintenance budget each year addressing premature maintenance arising from utilities openings.

Poor reinstated roads from street works also have the potential to undermine the quality of the roads network. The cost of road user delays has been calculated at around £5.1 billion, whilst social costs amount to £5.5 billion annually.



This article details the challenges faced by the UK Street Works Industry and **how Sopra Steria is helping to overcome these challenges.**

1: Asphalt Industry Alliance's (AIA) Annual Local Authority Road Maintenance (ALARM) survey

UK Streetworks - Key Facts

- 262,300 miles of total road network
- C.175 highway authorities monitoring Streetworks across UK
 - c.65% using the Permit scheme
 - c.35% continuing with the Notice regime
- Over 4 million excavation works annually
- Utility Streetworks cost the UK economy over £7bn per annum
 - £1.5bn direct construction costs
 - £5.5bn indirect costs (social and environmental impacts)
- £4.3 billion a year is the cost of congestion resulting from street works

Challenges faced by UK Utility Service Providers

As discussed in the opening section of this article the vast web of buried infrastructure across the UK is a serious challenge for the utilities sector. Against a backdrop of shifting policy expectations and regulatory uncertainty, utility suppliers are under pressure to maintain this underground asset base while demonstrating consistently high levels of efficiency, safety and service.

The utilities service providers industry is governed by highly regulated authorities keeping a check on Health and Safety of the people (workforce and general public) and also the conditions of the roads and areas where the excavations are carried out by them. **Key challenges all utilities organisations are facing regarding their Street Works programmes include:**



Improving overall NRSWA compliance levels

Utility Service Providers have to ensure that they adhere to the strict and ever evolving compliance levels targeted towards carrying out street works and general Health and Safety.



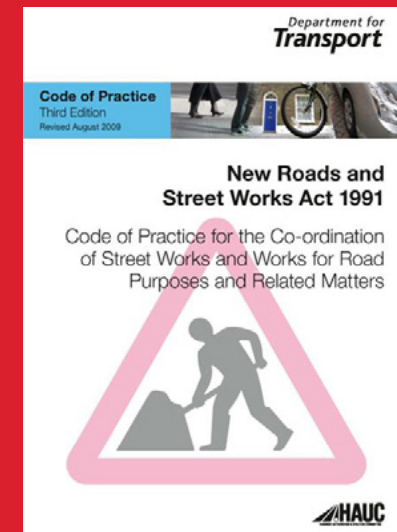
High Fixed Penalty Notices (FPN) & Section 74 overstay charges

High amounts of FPN (£120) and Section 74 overstay charges (£2,500/day) are paid to LHA's for not providing accurate and timely notification of works on the highway.

Regulatory Guidelines

New Roads and Street Works Act 1991 (NRSWA)

Code of Practice for the Co-ordination of Street Works and Works for Road Purposes and Related Matters





Low Permit Application success rate

Of all the permit applications sent to the LHA's, c.20% are still being rejected/modified due to missing & incorrect information causing further delay of works and high costs for the utilities service providers.



High Lane rental Liabilities, due to delay in timely completion of the job

Utility Service Providers have to pay a lane rental charge of up to £2,500 a day for carrying out the Streetworks and any delays in the works can further cause these costs to increase substantially.



Turnaround time for the emergency maintenance work

There is an immense pressure on Utility Service Providers to carry out the repair and maintenance works in case of any emergency quickly with all the correct information in hand to ensure resumption of services as quickly as possible.



Legacy systems, lack of robust reporting and visibility of the live status of the jobs

Most of the Utility Service Providers are still getting used to the emerging technologies and have to rely on the age old method of paperwork which is not only tedious but also becomes a challenge in long run if any data has be analysed for bringing in efficiencies.



High street work back office cost with no measurable performance

Utility Service Providers have to employ a number of direct employees to undertake the back office works like safe dig pack preparation, application of notices/permits and managing modifications and often struggle with high costs associated with producing the correct documentation on time and to the standards required.

Regulatory Guidelines

Health & Safety Guidance 47 (HSG47)

- Aimed at all those involved in commissioning, planning, managing and carrying out work on or near underground services.
- Outlines the potential dangers of working near underground services and gives advice on how to reduce any direct risks to people's health and safety, as well as the indirect risks arising through damage to services.



Sopra Steria's end to end solution for a better Street Works process

Sopra Steria has over 20+ years experience of providing services to organisations involved in Street Works. Our solution is built on our in depth knowledge of the Street Works process and expertise we have gained from delivering to our existing clients. The expertise we provide our Street Works clients with enable Utility Service Providers to provide the right documentation they require for successful Street Works to be undertaken.

Our dedicated offshore processing hub is available 24/7 to support the planning, commissioning and management of all Street Work activities. **By working with Sopra Steria to fulfil Street Works documentation processes your organisation can benefit from:**



Access to a flexible resource pool and faster turn-around times

Having cross trained staff on end to end Street Works enables Utility Service Providers to benefit from being able to process high volumes of applications in agreed timescales. For example Sopra Steria has been delivering turnaround times of Street Works documentation in timescales agreed with clients ranging from 30 minutes - 5 days and can quickly scale up to match clients demand at any time of the year.



Reduced costs and improved transactional processing efficiency and quality

With effective usage of labour, Utility Service Providers can cut down their back office costs by over 40% while maintaining high standards of works.

Our Capabilities

- We deliver end to end back office Streetworks services including Validation, Safe Dig and Noticing for Utility Service Providers
- We have a pool of highly skilled Streetworks Specialists and Back Office Support executives trained in various aspects of Streetworks including a deep understanding of NRSWA guidelines & HSG47
- We handle over 1 million transactions across end to end Streetworks (Validation, Safe Dig Pack Preparation and Noticing) annually with varied turnaround times while maintaining quality standards of over 99.5% since inception
- We have developed customised processes to track and report job statuses which help to improve overall job completion turnaround time
- We use RPA for preparation of job packs, with a zero defect rate making sure we adhere to the health and safety standards contractors need to undertake their programmes of work



Adherence to Safety Regulation HSG47 and NRSWA guidelines

An effective and well-designed training plan targeted towards regulatory compliance ensures that all working back office executives are aware of the latest updates and ensure the requirements are met at all times.

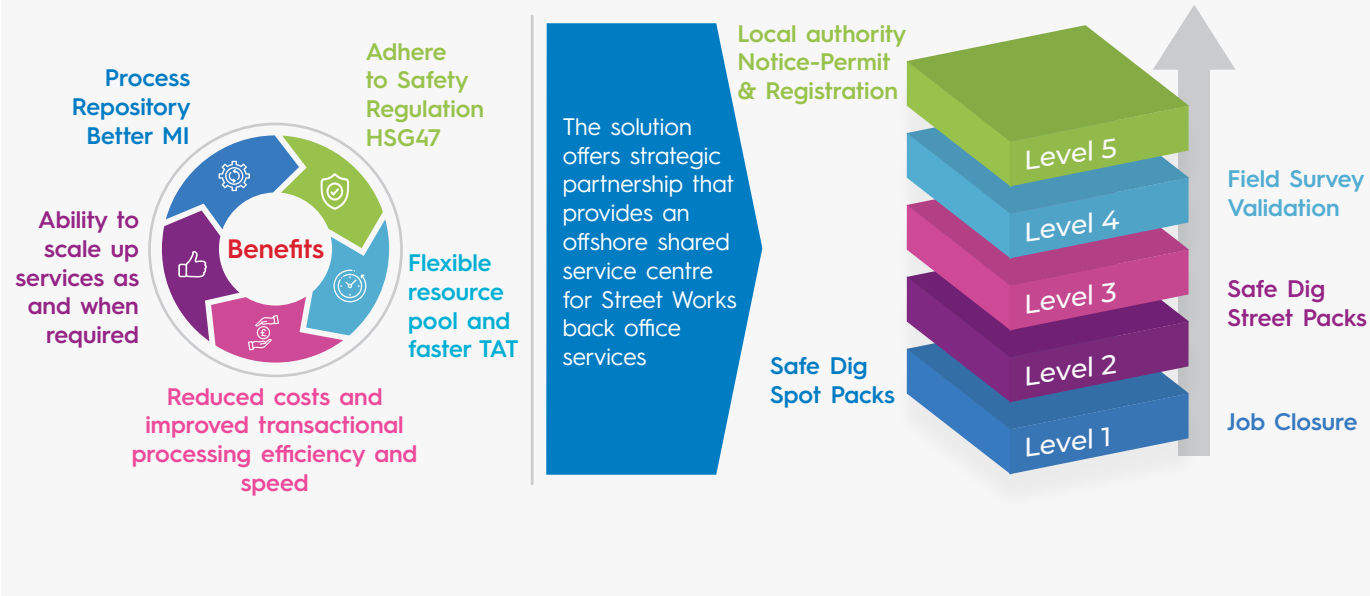


Process Repository and Better Management Information

Preparation of detailed process documents at key stroke level combined with various high level and low level performance reports enables the clients to remain on top of their processes and performance levels.

What makes us different?

- **Quality performance @ 99.99%** – zero job aborts leads to near zero rework and zero penalties
- **100% achievement of turnaround time for emergency works** – helping to reduce repeat contacts (and it takes only 30 minutes to complete the transaction)
- **Utility matrix** – a unique, one-step solution for creating Safe Dig packs that provide details of the utilities and utility companies in a specific geography; this has reduced search times from three minutes to just 30 seconds
- **Hold reduction process** – reduces the need to pass requirements back to the client team, improving closure rate and reducing hand-off by 43%
- **Flexible resource pool** – providing 24/7 coverage and a fast turnaround vs standard UK working hours
- **Ability to scale up services** – flexibly scale, as and when required, thanks to an agile offshore resource pool where 75% of staff are cross-skilled



Sopra Steria's **Street Works Promise**

The Sopra Steria Street Works solution provides utilities organisations with effective and efficient Street Works services. Built on deep domain expertise and new digital tools our solution promises to transform your existing Street Works operations.

By working with you we can enable significant improvements in permit application success rates and offer true scalability of operations as and when required.



Focus Area

FPNs & Section 74 Charges	NRSWA & HSG47 Compliance	Reduce Job Aborts	Emergency Maintenance Work	Cost Reduction
90% FPN reduction 99% reduction in Section 74	100% Compliant	0 Job Aborts	100% TAT met	40% Reduced cost
Reduce cost of High <ul style="list-style-type: none">Fixed Penalty NoticesSection 74 overstay charges	<ul style="list-style-type: none">Improving overall NRSWA compliance levelsUse RPA to highlight warnings	<ul style="list-style-type: none">Improve visibility of the live status of the jobs and management MI	<ul style="list-style-type: none">Improve Turnaround time for the emergency maintenance work	<ul style="list-style-type: none">Leverage labour arbitrage and Offshore shared services



Case Study - **Morrisons Utilities Services**



Background

Morrison Utility Services (MUS) are a leading UK utility services provider. It works with blue chip utility companies across the electricity, gas, rail, telecoms and water sectors on the upgrade and maintenance of their infrastructure and networks – including electricity substations, water and gas pipes, electricity and telecoms cables and metering.



The challenge

As part of a **10-year strategic partnership**, we are continually tasked to deliver key aspects of MUS's administrative work, which we undertake from our offshore delivery centre in Noida. The challenges we've faced include provisioning key underground asset information to support a safety focused industry; achieving consistently high quality delivery that targets zero job aborts to reduce regulatory penalties; optimising **'take on'** activities that reduce the time to deliver an effective service to 4 weeks; enabling effective cross-skilling and rapid deployment to meet demand peaks; and delivering a geographically centric Utility Matrix to support the rapid identification of utility companies.



The solution

First of all our team explored how to cost-effectively deliver an increasing volume of transactional processing activities into a growing number of MUS customers – with resource flexibility and a right-first-time approach. Stakeholders from both Sopra Steria and MUS worked together to agree the strategy and prioritise key service requirements, which freed up MUS management to focus on core engineering support activities.

Our Noida team identified, and delivered, the primary strategic priority of providing accurate and timely documentation to meet HS&E requirements, while reducing the associated back office costs. The major scope of our work, which is the provision of Safe Dig Packs, includes the collation of drawings to show the location of any underground services, such as electricity cables, gas or water pipes, and telecoms cables/ducts. If a field operative does not have the relevant information on arrival at a work site, they cannot continue – with MUS incurring avoidable costs and potential penalties for every aborted job. But since taking over this work and introducing a one-step solution with quality reviews, we are now into the third year of the contract and proud that no jobs have been aborted. With MUS's operations equating to over one million Street Works excavations a year, the cost saving implications are significant.

Case Study - **Morrison's Utilities Services**



The results

Offshore delivery has enabled MUS to expand the breadth of services it provides for a growing number of UK customers, without additional onshore headcount. It's also helped them realise the following results:

- **Quality performance @ 99.9%** - zero job aborts leads to near zero rework and zero penalties
- Bringing together similar activities across different contracts, to increase the agility and responsiveness of the offshore team
- Cross-skilling of 75% of offshore resources enables the rapid redeployment onto any account to meet peaks in demand and on-boarding of services for new customers without any time lag
- 100% achievement of turnaround time for emergency works, reducing repeat contacts
- A robust management information system and analytics support informed decision making
- Reduction in the amount of work handed off for completion to MU reduces management bandwidth. In one case we have reduced management costs of reviewing information from **13% to 8%** for one water utility



As well as undertaking the processing at lower cost, Sopra Steria is flexible enough to accommodate the differences in our processes resulting from our client focused approach.

- Head of Business Process Improvement, MUS



It's really great to see the packs being produced quickly with quality consistently at 100%.

- Director for Business Process Improvement, MUS



Final thoughts

Utility Service Providers dig more than 4 million holes in the UK's roads each year and it costs around ~£7bn per annum to the UK economy. With the introduction of New Roads and Street Works Act 1991 and The Traffic Management Act 2004 (TMA), the utilities Street Works landscape has shown a drastic change. There is an increased pressure on Utility Service providers to reduce costs and delays through:

- Improved transactional processing efficiency and speed
- Better overall NRSWA compliance levels

Sopra Steria can help Utility Service Providers to achieve their Street Works documentation processing goals through our dedicated offshore shared services team. The team is fully trained to produce documentation which is compliant to NRSWA 1991 and HSG47 Acts.

Our Street Works BPO solution enables Utility Service Providers to produce the right documentation within agreed timescales first time and has been proven to reduce back office processing costs by over 40%.

How we are partnering to deliver key Utility projects across the UK

- We are supporting the roll-out of FTTP (Fibre to the premises) and FTTC (Fibre to the cabinet) to more than 24 million homes and businesses in UK
- Enabling the replacement programme for gas distribution networks in East England and North London
- Helping to refurbish and upgrade of electricity substations, cables and power lines across London
- Supporting Water networks repair and maintenance activities, as well as Smart Metering Services
- Enabling major electricity companies to deliver major cabling projects up to 33kV
- Supporting the installation of c.100,000 water meters and surveying in excess of 130,000 properties on an annual basis

More Information

Utilities, telecoms and infrastructure providers need to undertake projects, programmes and initiatives which require engineering, repair and construction work that has an impact the UK road network. Before undertaking excavation works, organisations need to create documents to show the location of any underground services.

At Sopra Steria we have over **20+** years experience in helping organisations of all sizes improve their Street Works documentation processes. Our solution provides companies with the a cost effective and regulatory ready model which can be accessed **24/7** to meet their Street Works documentation needs.

For more information on our Street Works services please visit www.soprasteria.co.uk or email pscomms@soprasteria.com and one of our experts will be in touch.

We look forward to working with you.

