

New Street Works Management Permit Schemes

Cutting traffic disruption and reducing inconvenience to the public through coordinating road works is a major contemporary challenge to government. A modern day solution to the problem comes in the form of permit schemes which aims to help the coordination of roadworks. Several pioneering organisations have already introduced the scheme with positive results to date, all of which are underpinned by a reliable street information database in the form of the National Street Gazetteer (NSG).

A little history

The first modern attempt to deal with the problem of street works coordination came via the Public Utilities Street Works Act 1951. This was replaced by the New Roads & Street Works Act of 1991. The 1991 Act put the duty on Authorities responsible for streets to co-ordinate all works in the highway.

Under this act 'noticing' is the method by which works promoters including statutory undertakers, such as the utility companies, let the Highway Authority know that they are going to be working on the roads. Noticing has been in place for a number of years and has grown in sophistication. Highway Authorities and utility companies typically manage their street and roadworks with modern software packages that comply with the Department for Transport (DfT) 'Technical Specification for Electronic Transfer of Notices (EToN)'. EToN is reliant upon the National Street Gazetteer (NSG) to provide the common source of street referencing.

In 2004 the Traffic Management Act (TMA) was introduced to tackle congestion and disruption on the road network. The Act places a specific duty on local traffic authorities to ensure the smooth movement of traffic on the road network. The Act gives authorities additional tools to manage parking policies, enforcement on moving traffic and the coordination of street works. Amongst these additional tools are the 'Permit Schemes', provided as an alternative to the notification system set out in the New Roads and Street Works Act.

Permit Schemes

Permit Schemes are optional. Highway Authorities have to apply to the Department for Transport (DfT) for permission to set one up. Under a Permit Scheme, instead of informing a street authority about its intention to carry out works in an area, a works promoter needs to book time on the highway via a permit. The same process applies to the Highway Authority for its own works. The TMA refers specifically to the 'network management duty' and sets up the role of a responsible officer within each local authority - the 'Traffic Manager'. A Permit Scheme empowers the local authority to impose conditions (e.g. traffic management, diversions, working hours) and provides it with some income through permit fees to deal with the coordination of activities on the roads and streets. The permit fees have to fall in line with a DfT designed permit fee matrix and they are ring fenced so they can only be spent on that part of the Permit Scheme that relates to the administration and management of the external works promoters (and not of own works promoters).

Where a local authority is conducting its own works these are sanctioned and controlled in the same way using the permit scheme, although no permit fee is payable. Permit fees cannot be used to pay for staff to check for the coordination and permitting of own works so this is a net cost to the authority. The TMA importantly says there must be parity between the two, so the local authority cannot favour its own work over that of a third party and it must similarly impose permit conditions upon own works promoters in order to carry out the 'network management duty'.

The TMA allows the permitting authority to impose conditions with respect to:

- timing - e.g. off-peak or night work required
- traffic control - e.g. temporary lights, stop-go boards
- Temporary Traffic Regulation Orders - e.g. road closure/diversion route (or sometimes instruct avoidance of road closure)

The role of the National Street Gazetteer

One thing that all permit schemes, wherever they are, will have in common is their use of the National Street Gazetteer (NSG). Listing over one million streets in England and Wales, the NSG is the composite street index for the whole of England and Wales. It is used by local government and those organisations that work on or around highways, as the definitive reference for co-ordinating street works and managing the road network.

The latest DfT specification for the NSG specifies the use of 'level three' data, meaning that the NSG will be used to deliver full road geometry i.e. every twist and turn as opposed to the start and end points for roads and streets. The NSG complies with BS7666 (the British Standard designed for recording street, land and property information), and uses Unique Street Reference Numbers (USRNs) with which to identify any length of highway or road. The NSG was designed to be application independent with street works being the first national implementation. The NSG is also geo-referenced so it can be mapped accurately.

Vendors of street works software and those utilities such as BT are EToN aware and use the NSG to provide the key road references (USRNs) to hang all data and communication upon. All permit schemes must use the EToN specification as the basis for the submission of permits by works promoters.

The NSG's ability to store useful information about streets in the form of Additional Street Data (ASD) is proving to be indispensable to the first two permit schemes. In addition to ownership detail and road category there are other mandatory pieces of ASD. These are, the three statutory Special Designations of protected streets, traffic sensitive streets, and special engineering difficulties. There is also a lot of optional information that can be added as ASD such as:

- details of ownership
- width, height and weight restrictions
- details of streets with special engineering difficulties
- level crossing safety zones
- environmentally sensitive areas
- streets with special surfaces
- structures
- pipelines
- streets with priority lanes
- streets with special construction needs

The first Permit Schemes

The first Permit Scheme to receive approval by the Secretary of State for Transport was in Kent in July 2009 and went live on 25 January 2010. The first operational scheme however was the London Permit Scheme (LoPS) which came into force on 11 January 2010.

London Permit Scheme

Often referred to incorrectly as the Mayor's permit scheme, London Permit Scheme (LoPS) is a common scheme with defining principles, which is operated by each Borough in London independently, but all of which work under a common framework. By April 2010 there were 19 London Boroughs and Transport for London (TfL) who were members of the scheme. Another 7 Boroughs are due to join in the latter part of 2010.

LoPS seeks to deliver the 'Network Management Duty' through:

- mutual and collaborative working arrangements
- focus on co-ordination
- getting it right
- encouraging good practices

"What LoPS allows us to do is to apply conditions to works. A works promoter has to apply for a permit and the Highway Authority has to give permission. Under LoPS a permit is free if two works promoters are coordinating their works and working at the same location at the same time. This incentivises collaborative working" said Ian Hawthorn, Head of Network Management & Enforcement/Traffic Manager for the London Borough of Hammersmith & Fulham.

"A scheme such as this requires considerable expenditure and a leap of faith. It is intensive, requiring considerable administration. It needs high quality decision making whereas noticing is assessed cursorily. With permits we have to respond in a timely manner and failure to do this results in not being able to collect a fee for the permit."

"People tend to forget that it is not just roadworks that affect traffic. In the London Borough of Hammersmith and Fulham for example we have three football clubs, 53 schools, 3 shopping centres, Earls Court, 19 railway and tube stations, two hospitals and a prison. The Borough is also the gateway to London from the West. All of these have an impact on the network," continued Ian Hawthorn.

Under LoPS, works promoters have to plan in advance and then it is down to the Highway Authority to manage and coordinate those works which are categorised by duration:

- major works' are those that will take more than ten days to complete where permits have to be applied for three months in advance
- 'standard works' are those which will take four to ten days
- 'minor works' take less than four days
- 'immediate works' which are essentially emergency works.

In London the split between Authorities' own works and those of utilities companies is approximately 50:50.

It would be wrong to assume that introducing a Permit Scheme was a simple matter. A huge amount of consultation and technical work has been undertaken to get LoPS to where it is today. LoPS is a legal undertaking so it is supported by extensive legal documentation especially with regard to the fees, sanctions and fines that are involved. A thorough, 139 page, cost benefit analysis was also undertaken covering all 19 of the current members. This required a huge effort to provide the necessary evidence in order to ensure the funding for the scheme. Furthermore the DfT has scheduled a major audit of the scheme by independent consultants in 12 months time.

There were additional technical challenges too. The four major vendors of street works software, and utilities such as BT who have built their own systems, became involved in the Joint Permit Testing Group, which also included the Highway Authorities involved in the scheme. This involved considerable testing between different software systems to ensure compatibility. This process shared common scripts, expected details and outcomes in order to ensure that end-to-end communications between different vendor systems were robust. The Joint Permit Testing Group meets every month to discuss ongoing issues and problems and to keep tabs on how the scheme is operating. This process acknowledges the fact that the scheme is young and is still being interpreted in different ways. It is acknowledged that this is an evolving process which needs all parties to work together.

Despite the fact that the scheme has only been running for a short time there are already many positive outcomes:

- there has been a large drop in the number of works - works are already better quality, better considered and better planned and there are fewer spurious abandoned notices
- the scheme is supported by the Mayor of London because it ties in with the Mayor's strategy. TfL is part of the scheme
- permits are much more hands on, more controlling and more proactive because they force all involved parties to engage
- Highways Authorities talk to statutory undertakers much more now than previously, by phone, by email and electronically through the EToN system
- the Joint Permit Testing Group is working collaboratively to ensure the scheme's success.

There is still an element of work going on without a permit but this is expected to reduce as enforcement improves.

LoPS feeds into 'London Works' a separate TfL system which takes feeds from all 33 London Boroughs. It provides an overview of all works happening in London. It is useful for edge of Borough works/activities where there might be some overlap. A good example is provision for football matches. In the London Borough of Hammersmith and Fulham for example they have three football grounds, two premier ship and one championship. That means the Borough plays host to over 100 football matches a year.

"We use London Works to publish 'a zone of interest' for an area around a football ground. For example, as soon as there is a permit request for works in one of these areas, not only will we see it here in our system but it will be flagged up in London Works. Likewise we will be aware of works on or near Borough borders where we are not the permit receiving authority. This helps with consideration of the permit request and better works coordination" said Ian Hawthorn.

London Works is also accessible by the public: <http://public.londonworks.gov.uk>.

Kent Permit Scheme (KPS)

The Kent Permit Scheme had a similar gestation period to LoPS and it has taken considerable time, effort and collaboration with all those involved to set the scheme into motion. The Kent scheme has similar aims to LoPS. It will allow Kent Highway Services to co-ordinate better the timing of roadworks, so that gas, water, telecoms, electricity companies and its own works on the same part of the road at the same time, reducing the number and duration of roadworks and minimising their impact on motorists and other road users.

KPS covers the whole of the county of Kent, some 3,736 square kilometres with over 8,000 km of highway. KPS was launched in July 2009 for own works promoters and in January 2010 for statutory undertakers. The staggered start enabled the highways department to ensure that as the 'enforcer' of the scheme it could be confident that it was working with the best possible information as Andy Thompson, Network Data Team Manager for Kent Highway Services Alliance explains: "If you are in the position of levying fines and then find that the information that you are providing is wrong, it calls your position as the enforcer into question. Most fixed penalty offences are for noticing incorrectly, i.e. getting the details wrong. It is so important that the information that a Highway Authority puts out through the EToN system is correct and may be relied upon. Information and communication has to be of a high standard for the scheme to succeed."

Once again IT has played a big part in facilitating the scheme. Extensive system testing was carried out to ensure impartial handling of own and non-own works. The process is complicated because it goes beyond electronic noticing, and relies on integration with the Highway Authority's own works/asset management system and their payment and reconciliation systems. The software systems used by Local Authorities to manage street works have had EToN capabilities for some time but these have been amended by the EToN Developers Group, to be able to handle permitting.

Some of the vendors added performance indicators to their software in order to monitor the performance of the works promoters. This means the Traffic Manager will be able to get statistics on any given works promoter and ask the question for example 'Is this works promoter submitting its permit applications in the required timescale?' This is important because there are many different types of work capable of being carried out on the highways and they are each considered in a particular way, for example 'major' works require a minimum three month notice period. The software also tracks the life cycle of the work being carried out from the notice of actual start to the notice of completion and also the subsequent submission of all the reinstatement details.

"Being able to rate works promoters whether external or own works is a brilliant way of monitoring performance," said Andy Thompson. "For example in Kent the own works promoters started using the Permit Scheme in July 2009 whilst the utilities were only introduced to the scheme in January 2010. However after only two months their performance indicators were already showing better than those of the Authority's own works promoters. This is a reflection perhaps that the utilities already have a culture of responding to noticing and have a better understanding of the penalties and the territory involved and are therefore starting from a position that's a bit more disciplined."

Under the KPS, works promoters can mean anybody who wants to conduct an activity on the highway. Some of these activities will mean actually breaking the surface of the tarmac or 'opening' the road which could mean simply taking the lid off a man hole cover. It could be something as simple as conducting a traffic survey. Generally speaking these things are all called 'activities on the highway', all are promoted by somebody, either their own works contractors or a statutory undertaker such as a utility that has statutory powers to lay and maintain their own assets in the highway. There are also other people who might wish to work on the highways, for example housing developers or organisations whose sites are bisected by roads and would like to run 'comms' links under the road; all have to apply for a special license. These are categorised as licensed activities which also include things like skips and scaffolding. The scheme covers all these eventualities and is comprehensive.

Both noticing and permitting are two way transactions but there is a lot more communication to and fro with permitting. Those applying for a permit under KPS have to include in that application all the NSG Additional Street Data and conditions that apply as well. There are two

sorts of conditions - standard conditions regardless of the job and those conditions which are specific to the job. Standard conditions have to be posted on the Local Authority's website.

Just as with LoPS there are positive outcomes from the introduction of the scheme in Kent. "Utilities who were initially against permit schemes when first mooted have joined with Kent in extensive cooperation. Both meet regularly in a Works Promoters forum to monitor progress and deal with any issues. The utilities are saying how well the cooperative approach is working but it has also meant a real kick up the backside for own works promoters," said Andy Thompson. "They have to raise their game to match the performance indicators of the utilities companies."

"There are subtleties in the process, for example, under KPS an undertaker can get a discount on a permit fee by arranging cooperation in the same set of works with another undertaker. For example, through trench sharing or having common storage for site materials. This would also be the case if you are able to demonstrate that you are cooperating with another works promoter and show that the two of you working together would occupy the highway for less time as a result," continued Andy Thompson.

The way ahead

"Without the NSG we can't plan or do anything," said Ian Hawthorn. "Additional Street Data is key to what we do, it proves to be very useful in street works planning and we update it on a monthly basis. When we do major works in our borough we need an intimate knowledge and understanding of how the works might impact a particular area. One good example is putting details of bus stops in as ASD. This is not mandatory but very useful. Other optional information includes height, weight and width restrictions. All those authorities involved in LoPS have invested heavily in improving their data and this is an ongoing commitment."

"With the public becoming more aware of the opportunities to self-serve and find out how to avoid disruption, it is incumbent upon Local Authorities to make information about road works publicly available, said Andy Thompson. "Since all street activities have to be referenced using the NSG's USRN's it is possible to map and post them on a LA's own website or a publicly accessible website such as ELGIN (Electronic Local Government Information Network). This is very important to the Kent Permit Scheme because it insists on using ELGIN in pre-planning the works. In other words if a works promoter sends in an application for a works permit that it wants to carry out at a certain time and at a certain location and there is already pre-planned works in existence by some other promoter they are going to be asked why they didn't look it up on ELGIN first. It is all part of the rigour the NSG enables us to apply to the scheme."

Any Highways Authority that intends to implement a Permit Scheme gives out a positive signal to the public that the highways department serious in its intention to tackle congestion. At the end of the day running a successful Permit Scheme is a badge of competence. It takes time, resource, effort and considerable collaboration to ensure the success of a permit scheme. Although it is too early to make a final judgement it would appear that the first two schemes are beginning to bear fruit.

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