



Keeping Traffic Moving

Roads and streets are part of the country's infrastructure and currently there are over 1,226,000 of them listed in the National Street Gazetteer (NSG). Issues such as congestion, capacity planning, street works, accidents, incidents and maintenance can affect them all and has a severe impact on traffic flow.

The NSG is coordinated on behalf of local government by the Improvement and Development Agency. It is the definitive reference system used in the notification process and the coordination of street works as required under the New Roads and Street Works Act (1991). Under this legislation, each highways authority in England and Wales is required to create and maintain its own local street gazetteer and associated street data. These are then compiled into a master index built to British Standard (BS) 7666:2006, the NSG can be accessed by all Statutory Undertakers via the NSG online hub, managed by Intelligent Addressing.

The NSG employs an unambiguous referencing system, using Unique Street Reference Numbers to identify any length of highway, street or road in England and Wales. According to legislation, all publicly maintained streets, prospective publicly maintained streets, as well as private streets are recorded in the NSG.

On a monthly basis, 174 highways authorities across England and Wales upload their street gazetteers, along with associated street data, to the NSG hub using an online validation and submission facility. This then enables all statutory undertakers (the utility companies) to download data, and allow them to meet their statutory requirements to provide the appropriate street works notifications on current NSG records.

Taking advantage of improvements

In April 2009, the NSG was updated to a new format (DTF 7.1) enabling highways authorities to record heights, weights and width restrictions, and directions of flow (one way or two way) against individual roads and streets, invaluable for anyone requiring routing information.

The new format, which is compliant with BS7666:2006, also enables closer alignment with the National Land and Property Gazetteer (NLP), the country's definitive list of property addresses. Improving both the richness of the data held in the NSG has enabled those involved in road works to consult and co-ordinate more effectively, reducing inconvenience and congestion.

Intelligent Addressing (IA), the Concessionaire of the NSG, has developed a conversion service for users of the NSG who are unable to import the latest format of the NSG, which from 6th April 2010 was only published in DTF7.1 data format.

Updated versions of the NSG are published on the 2nd working day of each month. The new conversion service gives clients access to the converted data on a dedicated ftp site on the day that the NSG is published. This means that there will be no interruption in supply to organisations that depend on this vital dataset for streetworks information.



Using the NSG to ease congestion

Local authorities across England and Wales are using the NSG in their own businesses to reduce congestion and improve road surfaces. Following are two examples.



Blackpool

An intelligent map of Blackpool's roads is at the heart of a project that is transforming highways maintenance and street works in the popular seaside resort. The computer system captures and presents information about day-to-day changes that may affect Blackpool's roads and delivers the information via an easy to use web mapping tool to support essential decision making.

Residents and visitors to Blackpool can now obtain information about the location, duration and impact of both current and planned road maintenance and improvement projects in and around the resort. Users of the Council website can choose a backdrop of street maps or aerial photography before selecting the information they wish to display and interact with. The information, based on the NSG, is constantly updated and can be supplemented with safety information, service requests and details from the Council's asset register. The project won Blackpool Council the 2009 'National Street Gazetteer' Exemplar Award for 'Most Effective Street Works Integration'.

"We understood that there was a 'technological disconnect' between those people who collect and manage data, often using complex software, and those who require information in order to make decisions whether they be senior managers, council members or citizens," commented Will Britain, Principal Engineer at Blackpool Council. "Addressing this divide has resulted in well maintained, easily accessible data creating an information rich resource for the Council, business and the community."

Councillor Maxine Callow, Cabinet Member for Tourism and Regeneration said: "Using the system, staff can determine the impact of planned works and make decisions based on the disruption it may cause. It means that we should not be faced with a situation where diversion routes around one set of works are interrupted by another set of road works unless it is absolutely necessary."

"This new approach to the collection, management and distribution of data has generated a lot of interest from other Councils and even the Department of Transport for the way it allows residents to get the bigger picture of road works across the town. It has also resulted in interest from other organisations including Microsoft, leading academic institutions and received another award from the Department of Transport," concluded Britain.



Devon and South Wales

Following the worst cold weather conditions for over 30 years, highway authorities across England and Wales are facing huge challenges in repairing newly formed potholes on our roads. The rich information held within the NSG, has greatly simplified this task by assisting the scheduling and communication of necessary repairs.

In Devon the highway authority is mustering its resources to tackle the problem head on with the NSG providing the basis for its planned assault on potholes. Over the next six weeks a specialist team made up of 26 groups of three to five people will take to the streets to inspect Devon's 8,000 mile long road network. The teams will set out to identify the potholes - each travelling in lightweight vehicles equipped to carry out intermediate repairs on all small potholes.

The crews are equipped with tablet PCs, GPS location and mobile network cards. The NSG provides the background information on all of the routes identifying every road, its class and its maintenance category. GPS locates the exact position of each pothole on the road which is transmitted back to the routine maintenance system twice a day. The data held in the NSG then helps to determine the priority for larger pothole repairs and permanent repairs for those tackled in the initial campaign.

In South Wales the observations are familiar. "We too have been badly affected by the severe weather and freezing temperatures, with a significant increase in the amount of potholes to be repaired," said Jason Jenkins, Highways Network Manager for the South Wales Highways Authority. "Our maintenance package for inspections, Works orders and Noticing regime now relies on the NSG for categorising the streets and identifying the work locations on Works tickets throughout the authority, so it has become indispensable," continued Jenkins.

Simon Bailey the NSG custodian at Intelligent Addressing said, "The NSG is now being used for the identification and coordination of road and street repairs across England and Wales. Being able to schedule repairs based on road category and then to communicate exact locations to repair crews is a huge time saver and another brilliant example of this essential national dataset at work."

For more information, see www.thensg.org.uk or contact the NSG helpdesk on 020 7747 3502 or helpdesk@intelligent-addressing.co.uk.