Department for Transport

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Working Together: A Good Practice Guide to Managing Works in the Street

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Scope of this Good Practice Guide

The Good Practice Guide has been published on behalf of the Department for Transport, with the support of the Welsh Assembly Government and HAUC (UK), primarily for use by local authorities, utility companies and others in England and Wales. Legislative provisions for works in the street are different in some respects in other parts of the UK. However, the principles of good practice, in particular that of working together at all stages to minimise disruption and inconvenience, should be applicable in all areas.

Foreword

Tackling congestion on our roads is one of the key challenges in transport today, both at national and local level. The ability of people and goods to move around – to meet the needs of business, to access services, for social purposes and leisure – depends to a great extent on the road network. Part of the response to congestion is to make sure that we make the best possible use of the road network to keep traffic flowing.

However, roads carry more than just traffic. Within them are the means to carry the energy, water and communications infrastructure to provide essential services to both homes and businesses. The right balance needs to be found between the needs of the utility companies, seeking to maintain essential services, and highway authorities striving to keep traffic moving for all their road users.

While all this work is necessary, when and how it is done can make a big difference to the effect it has on road users. We have all had experience of journeys that have been delayed by someone digging up the road. It is important that works are carefully planned and co-ordinated with other activities in the street, as well as carried out safely and with consideration towards roads users and the public. If those involved work closely to deliver this, it will ensure safety for workers and the public while minimising disruption and inconvenience.

The studies in this Guide show how working together can do this. It requires co-operation of those involved, especially utility companies, local authorities and their contractors and suppliers. It also requires a culture that tries to minimise the impact of works throughout the process, from early planning through to the completion of the work. It is important that, alongside the roll-out of the Traffic Management Act 2004 powers, all those involved in planning or carrying out works in the street seek to embed this co-operation and culture within their organisations and the way that they work together.

We welcome the publication of this Good Practice Guide and are grateful for the contribution of all those involved in creating it. We hope that the Guide will encourage everyone in this industry to work together, adopt the principles set out here, but also go further to develop and promote new ways of working that will become the good practice of the future. This will benefit the industry as well as all road users and local communities.

Gillian Merron MP
Transport Minister
Department for Transport

Andrew Davies AM
Minister for Enterprise, Innovation & Networks
Welsh Assembly Government

CHAPTER 1

Key principles

1.1 Introduction

1.1.1 The country's road network is a vital asset, providing the means for people and goods to move around. Streets also provide a key part of local public space, where people can meet, talk and participate in their community. Those same streets also house most of the utility infrastructure for communications, energy, water and sewerage that underpins both business and social activity.

1.1.2 The utility infrastructure needs to be maintained, improved and replaced. The road network too needs to be maintained and improved. The aim of this Good Practice Guide is to show how this can be carried out with least disruption to highway users, frontagers and local communities.

1.1.3 The Guide is commended to all promoters of works and other activities in the highway, including highway authorities and utility companies, their contractors and suppliers, as well as those within authorities involved in co-ordinating and managing those activities.

1.2 Why should highway authorities and utilities co-ordinate and manage works?

1.2.1 Works in the street will inevitably cause some disruption: for example, through delays and congestion to all highway users; inconvenience to local residents, pedestrians and businesses; and intrusion into the local environment. The impact of these works will vary widely. The extent of disruption can be substantial and widespread. Where utility works are involved, there is a need to balance the impact on highway users with the effect on utility services and their customers.

1.2.2 Better co-ordination and management of works will bring benefits in terms of safety, congestion and disruption, environment and service to the public, not least through keeping to a minimum the number of different occasions a street is dug up.

Legal responsibilities on the various parties involved in working in the street

Traffic Management Act 2004:

- introduced a network management duty on local traffic authorities to manage their road networks to keep traffic moving. Traffic in this context means all highway users. The duty includes the co-ordination of activities on the network;
- necessitates co-operation with other authorities to help keep traffic moving on their networks;
- requires the appointment of a Traffic Manager by each authority;
- involves co-operation among different parts of an authority where their activities impact on the road network.

New Roads and Street Works Act 1991:

- requires authorities to co-ordinate works on their streets, including both their own works and those carried out by utility companies;
- requires utilities to co-operate in that co-ordination process.

1.2.3 'Highway users' throughout this guide covers everybody who uses the footway or the carriageway, whether for transport or access, or for recreation or business. It includes users of motorised and non-motorised vehicles, pedestrians and horse riders. It also includes people with disabilities, and, by giving particular attention to them, conditions will be improved for others whose mobility is hindered, e.g. by heavy shopping or by accompanying children.

1.2.4 The Traffic Management Act 2004 (TMA) introduced new duties on local authorities and promoters of activities in the street. The TMA raises expectations for better management of the road network. It is crucial to realising these expectations fully that all parties work well together, so that effective co-ordination and co-operation across all activities are achieved for the benefit of the public.

1.3 Key factors in successful co-ordination

1.3.1 Developing and maintaining good working relations is key to co-ordinating and managing activities on the street. This involves:

- having shared objectives for completing work quickly, for minimising disruption and for exchanging information openly;
- talking to each other regularly – informally as well as formally;
- seeing others' perspectives and being prepared to be flexible for the overall good;
- facilitating decisions, e.g. by fielding people at planning meetings with the power to change things;
- dealing with problems promptly and collaboratively;
- acting reasonably.

1.3.2 The rest of this guide sets out the principles of how authorities and utilities can work together to minimise the disruption caused by their works. The principles are illustrated by case studies showing how these have been put into practice. The case studies are necessarily a sample of good practice and are not definitive for all situations. However, they show what effective working together can achieve and the benefits this brings for all concerned.

1.3.3 Regulations and codes of practice exist to provide a framework within which to operate and a backstop of minimum standards. Also, developments in IT are providing new tools to help the processes work. However, the regulations and IT systems should not dictate the nature of working relationships. The greatest benefits will be achieved where all parties work well together to provide the best service to the public, business and the community.

CASE STUDY
Partnership working in East Sussex

EDF Energy Networks and East Sussex County Council have signed a partnership agreement to improve all works carried out by both organisations in the county. A key objective is to identify ways of working better together to minimise disruption, improve compliance with the New Roads and Street Works Act 1991 and successfully implement the Traffic Management Act 2004. Trust, mutual respect, openness and honesty are building blocks for good working relations, recognising that the conflict which can sometimes arise among contractors, utilities and authorities can be reduced through better communications and greater understanding. Key elements of the partnership include:

- a partnership board to give strategic direction;
- a balance of performance indicators to measure success;
- joint process improvement workshops (Fig. 1.1).

The partnership will drive more efficient and improved service delivery for both utility and highway works to the benefit of customers, both as energy consumers and highway users.

Figure 1.1 Joint Performance Indicator Group

Summary – key themes for minimising disruption

- Good working relationships are vital – they aid the smooth running of the formal processes;
- Good communication is essential among all parties, including those affected by any works;
- Good forward planning leads to more effective co-ordination, management and execution of works;
- Embedding new culture is part of the process, so that all those involved – from initial planning through to the works taking place – consider the impact of the works on all highway users;
- Good practice should be promoted and adopted in all aspects of working in the street, using forums such as regional Highway Authorities & Utilities Committees to facilitate this.

CHAPTER 2

Forward planning and co-ordination

2.1 Planning to minimise disruption before works start

2.1.1 In carrying out works in the street, the key elements to minimise disruption and inconvenience to highway users, without compromising safety, are co-operation and flexibility, good co-ordination and planning and good communication (see Figure 2.1). Although this chapter deals with each of these in turn, in reality they go hand in hand throughout the process, from the first discussions about proposed works to completion of those works on the ground. For example:

- co-ordination with other activities on the highway should be part of forward planning;
- part of co-operation is providing full, accurate information promptly, i.e. good communication, whether at the planning stage or while the works are under way;
- flexibility by promoters allows better co-ordination to take place at the start and in the event of changing circumstances.

2.1.2 Some works, especially larger ones, are planned well ahead, giving more time for co-ordination and planning. When dealing with emergencies and the more minor works timescales are shorter, but even with little time some co-ordination and planning will often be possible. With these shorter timescales flexibility and co-operation are even more important and can deliver benefits. Whether for forward planning or reacting to changing situations, there is

Figure 2.1 Interrelation of key elements when planning works

no substitute for developing good working relationships at all levels and maintaining good communications.

2.2 Early preparation and forward planning

2.2.1 Early preparation and forward planning will pay dividends by reducing disruption and inconvenience to highway users at the construction stage, and careful design can reduce the need for subsequent intervention. The works will be a very public 'advert' for both the firms working on the street and the organisation for which the work is being done.

2.2.2 Early planning means that:

- different options can be considered for carrying out the work safely but with minimum disruption. Forward plans can be refined, in discussion with the co-ordinating authority and, if appropriate, with the contractor; more detailed and more complete information can then be provided for co-ordinating works across the network;
- discussions can take place with the local community, so that their interests can be taken into account and plans adjusted accordingly. This is particularly important where work is likely to be widespread or last a long time;
- the impact on other stakeholders can be identified, so that they can be consulted and mitigation measures incorporated;
- actions required by other parties, e.g. in relation to parking, can be identified in good time and put in hand, so that works will not be delayed by last-minute problems;
- information on other organisations' apparatus can be collected and taken into account, reducing the risk of accidents and disruption caused by damaging that apparatus;
- a site check can be made to confirm that the plans are practical.

A sample checklist for early planning is shown at Annex A.

2.2.3 In preparing designs to minimise disruption:

- planning should take account of development and community plans for the area and, where possible, should make provision for future developments so as to avoid additional major works later to upgrade the infrastructure;
- works should be designed for long-term durability to reduce the need for further works in subsequent years;
- designs should enable both construction and future maintenance to be carried out in ways that minimise disruption for all highway users and the public, e.g. by locating new apparatus in highway verges.

2.2.4 This is also the time when consideration can be given to get all parties focussed on minimising disruption and looking at innovative ways to achieve that:

- engaging with suppliers and contractors to review and improve working practices, preferably in ways that produce benefits for them as well as for the public;
- setting up new types of contract or non-contractual mechanisms to provide appropriate incentives to minimise disruption.

2.3 Effective co-ordination

2.3.1 Good co-ordination of works will bring benefits from reduced disruption. The key principles of effective co-ordination are:

- earliest possible sharing of information and consultation among interested parties;
- regular input and attendance of relevant personnel (those who are empowered to take decisions) at co-ordination meetings;
- utilities and authorities sharing business development plans and replacement programmes for ageing apparatus and highway assets with the co-ordinating authority;
- communication of decisions at the earliest opportunity so that other promoters' plans can be adapted, if necessary;

CASE STUDY
Co-ordinated works on A37 near Bath

The A37 in Bath & North East Somerset is a major road carrying about 18,000 vehicles per day. The carriageway in the Whitchurch and Pensford villages is narrow, so any work would be very difficult.

The Council planned extensive carriageway reconstruction works. Discussions with utility companies led to their programmed works over the next five years being brought forward, to reduce the number of times the road was dug up and to avoid digging up the newly constructed road.

A schedule of works was agreed (Fig. 2.2), timed to fit in with the Bristol and West Show and the Glastonbury Festival, which both attract significant extra traffic to the area. Utilities worked back to back to complete their works in advance of the Council reconstruction work.

Early planning and close ongoing co-operation between the Council and various utilities resulted in overall disruption to A37 traffic and to the local communities being reduced from 12 months to 5 months.

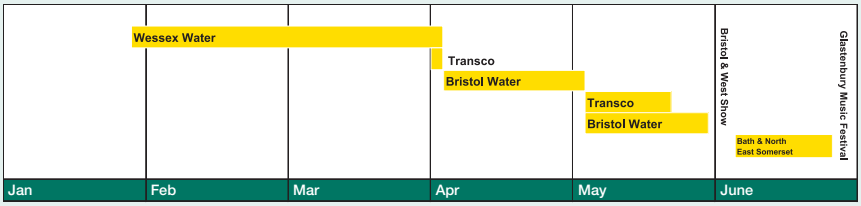

Figure 2.2 A37 schedule

CASE STUDY
Helping co-ordination in London

Transport for London, with the support of the London boroughs, has developed 'LondonWorks', a system to draw together information on all works into a central register with the facility to filter and display that information, e.g. on a map base (Fig. 2.3). The information is available to both works promoters and Traffic Managers carrying out co-ordination.

Bringing together registers from all authorities and providing visual displays makes it easier to see the overall picture of activity, including cross-authority boundaries. This creates the opportunity for better planning and co-ordination, identifying the scope for co-operation and the ability to reschedule to minimise the overall impact.

The central register is at present based on the New Roads and Street Works Act 1991 statutory requirements and will also encompass permits. Developments are planned to facilitate advance planning so that discussion and co-ordination can take place before works have to be notified or permits applied for, making planning and co-ordination even more effective.

Figure 2.3 Page from LondonWorks

CASE STUDY
London HAUC co-ordination meetings

In order to make the quarterly co-ordination meetings (Fig. 2.4) as productive as possible, London HAUC has created a standard agenda for its meetings and standard ways of collating information about works by different authorities and utilities:

co-ordination meetings include highway and planning authorities' representatives, utilities, street works personnel, police and other interested parties;

a meeting schedule for co-ordination meetings is published at least 12 months in advance;

street authorities and utilities jointly produce a collated list of planned major works in advance of each co-ordination meeting and update it in between meetings;

agreed actions are recorded for all parties to follow up.

This structured approach helps ensure that matters are not overlooked; that information is easily digested and discussions can be fully informed; that potential conflicts can be speedily dealt with, including those which involve more than one authority; and that all important issues are covered.

Figure 2.4 Co-ordination meeting in Islington

- cross-boundary co-ordination among neighbouring authorities, utilities and others, especially for all planned works and planned maintenance on strategic routes.

2.3.2 In addition to considering works by various promoters, co-ordination should take into account any events and other activities that could affect highway users. Some events may be regular, e.g. sporting fixtures, annual fairs or parades; others may be one-off, e.g. celebrations for special anniversaries. Activities such as building works can involve the use of part of a road or even its closure for a period. Special attention is needed where the interaction of these events and activities with proposed works would exacerbate any disruption those works might cause. Good co-ordination would seek to avoid such clashes wherever possible.

2.3.3 Open and regular dialogue between the promoter planning a set of proposed works and the person co-ordinating works in the authority will be an integral part of working well together. This will:

- ensure that the co-ordinator knows what is proposed;
- help assess the impact of the proposed works;
- assist the design process;
- encourage improved co-ordination among the various parties.

2.3.4 This dialogue is important not just at the planning stages and when works start, but also to inform the co-ordinator if changes have to be made to the plans while work is in progress.

2.3.5 Developments in IT can provide additional tools to help with co-ordination by:

- presenting information on a map base, making it easier to see potential interactions between works and with other events and activities;

- facilitating the sharing of information about planned works well before the statutory requirements come into force, so that co-ordination starts earlier and becomes an integral part of planning for works;
- allowing assessment of traffic impact where key data, such as traffic flows and road width, can be provided.

Key points to remember for formal communications between works promoters and an authority's co-ordinator include:

- deliver information as soon as possible within the time frame allowed for each type of works: e.g. major projects information provided ahead of co-ordination meetings;
- provide clear information, free of jargon, so that there is no confusion over what is intended;
- provide accurate and updated site location details, including national grid references;
- provide information on changes as soon as possible;
- tell the co-ordinator if works are abandoned or deferred.

CASE STUDY
Co-ordination strategy in Birmingham

On the approaches to the City and in the centre, pairs of routes are identified so that, where works are planned to take place on one street in a pair, the other is kept clear for the duration of those works in order to provide an alternative route (Fig. 2.5). This aims to minimise disruption by avoiding too many works being carried out in locations where their cumulative effect could be very disruptive. The paired streets are published, so that works promoters can take this into account in their planning and make co-ordination more straightforward for the authority.

Figure 2.5 Birmingham pairs of routes

CASE STUDY

Kirklees 'clash' reports

Kirklees Metropolitan Council uses a scheme management database (Highway Information Management System – HIMS) where all planned works for all works promoters are stored. The system produces 'clash' reports, in which it becomes clear if two or more works could conflict (fig. 2.6). These reports are used at co-ordination meetings to highlight potential conflicts and enable them to be resolved. The information is also used on a day-to-day basis before extensions are granted to any works, thus improving the management of the procedure for over-running works and minimising disruption.

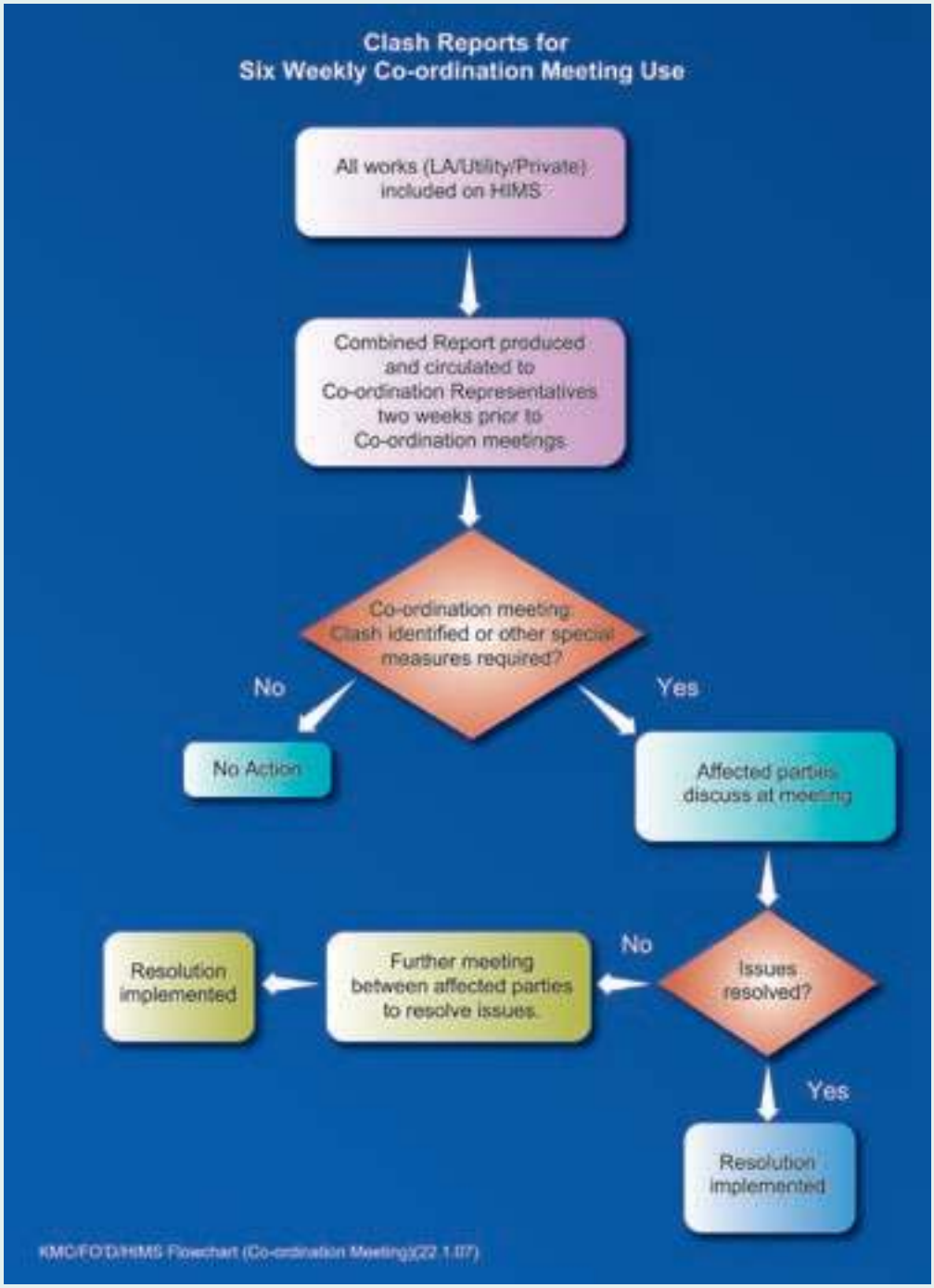

Figure 2.6 Simplified flow chart for creating and using a 'clash' report

As IT developments make more information more readily available and easier to use, promoters should be able to be more proactive in the co-ordination process, identifying opportunities to avoid conflicts and to co-operate with others.

2.4 Good communications

2.4.1 Good communications are essential if works promoters, co-ordinators and all other stakeholders are to work well together. A formal arrangement will exist in most cases for the exchange of information between promoters and co-ordinators, e.g. prescribed through regulations and transmitted by electronic systems. This will be most effective if:

- it is part of an ongoing working relationship and dialogue;
- it uses informal means as well as the formal mechanisms;
- it involves personal communications, e.g. telephone rather than e-mail.

CASE STUDY
Communications strategy for water mains replacement programme

Thames Water have a major programme for replacing their Victorian mains in London. Recognising that communications with all the stakeholders and the public would be an important part of minimising disruption, the company developed a communications strategy to be followed for each set of works (Fig. 2.7). Communication prior to starting works includes:

- consultation at the planning stage with local authorities, landowners, developers and businesses about the potential impact of the proposed works;
- liaison with police and other emergency services, local bus and rail operators, environmental health bodies and other stakeholders;
- consultation with highway users, including particular groups, such as people with disabilities;
- public consultations with local residents/ businesses at open meetings and exhibitions;
- drop-in sessions and local media publicity to inform local residents and others in advance about the plans and programmes, once these have been firmed up.

During the course of the works, communications continue, including:

- informing local residents and others about the progress of the works, as well as publishing that information in the media and through the local authority's and utility's web sites;
- provision of a dedicated 24-hour contact telephone number.

Figure 2.7 Thames Water table of communication activities

CASE STUDY

Online information in Camden

All works, road closures and applications for skips, cranes and scaffold licences on their roads are captured electronically by Camden Borough Council and can be viewed by interested parties on Camden's web site (Fig. 2.8).

As well as providing information for promoters planning works in the borough, information can be accessed by the general public so that the local community, local businesses and others are kept informed of what is happening on their streets and can plan accordingly.

Figure 2.8 Page from Camden's list of street works

2.4.2 It is often more effective to pick up the telephone to resolve a query or discuss alternative options than engage in a series of written exchanges. Confirmation of agreements resulting from informal communication may, nevertheless, need to be recorded for later reference.

2.4.3 Good communications will include consultation and dialogue between works promoters and the various stakeholders, including those members of the public who could be affected. For consultation and dialogue to be effective, information should be provided at various stages, depending on the scale of the works:

- at the planning stage, where stakeholder and public interests can influence the way that works are carried out;
- when works are due to start, so that people know what to expect and can make any necessary arrangements;
- while works are in train, to explain what is happening in more detail and any changes to the plans (see sections 3.3 to 3.5).

2.5 Good co-operation

2.5.1 Good co-operation by works promoters is a prerequisite for good co-ordination. This becomes even more important for short-term works when there is very limited time for forward planning and hence co-ordination. Where all the parties are co-operating and working well together, this will enhance good working relationships and establish a virtuous circle where:

- there will be an ongoing dialogue between the parties;
- promoters will be flexible in their approach, willing to adjust their programme or the way of working in order to reduce the overall impact of all the works;

CASE STUDY

Co-operating to minimise disruption in Nottingham

Severn Trent Water needed to install an additional main from their Strelley reservoir. At an early stage they discussed possible routes with Nottingham City Council and agreed a route that avoided breaking into a concrete road but involved working in a busier street, Aspley Lane (Fig. 2.9), which the City were planning to resurface.

Detailed plans were drawn up, using trial holes to collect information and prepare traffic management plans for the key locations.

Communication and co-operation continued among the Council, the water company and the contractors so that the programme was adjusted as circumstances changed. This included bringing works in the shopping area forward from the New Year, when faster progress by the City's contractor allowed Severn Trent Water to complete their works before the Christmas period.

Good co-operation at the start and continuing co-operation throughout the project minimised the disruption and inconvenience for road users, as well as for shoppers and the local businesses.

Figure 2.9 Aspley Lane street works

- co-ordinators will also be flexible when works have limited impacts, e.g. accommodating changes in promoters' programmes and plans.

2.5.2 Co-operation will also be required at times:

- by different parts of an authority e.g. when parking places need to be suspended;
- between different authorities, e.g. where traffic avoiding works in one authority has an impact on another authority's roads;
- with other stakeholders, e.g. with bus operators where their bus routes need to be diverted or bus stops moved.

2.5.3 Promoters and authorities should aim to create a culture of co-operation and flexibility within their own organisations, and, by putting that into practice, help promote a similar response from the other stakeholders involved. This will reduce disruption and inconvenience as well as improving the service to all.

Summary – minimising disruption and inconvenience before works start

- Time spent on forward planning and early co-ordination will lead to plans that will minimise disruption and inconvenience when the works take place.
- Effective co-ordination requires:
  - the involvement of all interested parties, including the public, early on;
  - co-operation and flexibility by promoters and within authorities;
  - good communications between promoters and authorities, and with the public and other stakeholders.
- Communication and co-operation can minimise the impact of works – even of emergency and short-term works.
- IT can help the co-ordination process.

CHAPTER 3

On site

3.1 Minimising disruption during works

3.1.1 Safety for both workers and the public must be paramount when works are carried out in the street, and appropriate risk assessments should be carried out (see key reference documents in Annex B). However, there will remain decisions as to how precisely works are done. Good planning and preparation, as described in Chapter 2, can ensure that disruption is minimised without compromising safety, through, for example:

- the consideration of options and discussions with the co-ordinating authority, contractors and other interested parties;
- the provision of plans and instructions to pass to those working on site;
- embedding a culture of minimising disruption throughout the supply chain and by using appropriate contracts.

3.1.2 Developing a culture that looks for ways to reduce the impact of works will be especially important when there is limited time for planning, e.g. for emergency works, or when circumstances mean that plans have to change. The general instructions and guidance provided to contractors should reinforce the need to minimise disruption, so that when immediate or short-term action is needed, works are carried out so as to cause least inconvenience to highway users.

3.2 Minimising time on site

3.2.1 One important way that disruption is minimised is for works to be completed as quickly and efficiently as possible, without sacrificing the quality and long-term durability of the workmanship:

- good preparation and planning beforehand can ensure time on site is used efficiently;
- collecting information beforehand on existing apparatus, including surveys and trial holes, can prevent problems caused by damage to other parties' services or highway features;
- continuing works through to completion without unnecessary breaks will minimise time on site, e.g. the use of multi-task teams can eliminate the dead time that can arise while waiting for a sequence of specialist teams;
- evening and weekend working can be used to expedite the work, subject to environmental restrictions on working hours;
- the use of new materials and innovative excavation, reinstatement and repair methods can reduce site occupancy;

Working on site to minimise disruption

- Set out working areas properly for safe working.
- Minimise the area occupied by the works.
- Place material where it won't add to disruption. Don't order too many materials to be delivered before they are needed and spread them along the road. Handle material in ways that minimise disruption.
- Make use of temporary traffic signals and other traffic management only where needed.
- Park non essential vehicles where they won't cause disruption and minimise vehicles around site.
- Consider the impact on adjacent properties. Maintain access. Use appropriate equipment.

CASE STUDY

Night working in Bromley

The A232 Crofton Road is a busy road in south London, with one lane in each direction and narrow in places. It carries several bus routes and provides a route for emergency services, including access to a large hospital.

The road required resurfacing, which would involve closing one lane at a time over sections. This could create long delays, as there are no nearby alternative routes.

In discussion with its contractor, Bromley arranged for most of the work to be done at night, even though this was more expensive. It also arranged for convoy shuttle working to keep traffic speeds low and maintain safety for the workforce.

This approach greatly reduced the disruption caused by the resurfacing works.

CASE STUDY

Multi-skilled gangs to minimise time on site

BT has created multi-skilled gangs that can be sent to deal with a range of faults. Instead of having a number of gangs, each carrying out separate tasks, these multi-skilled gangs can 'dig and fix', i.e. excavate, repair the faults and reinstate the highway. This simplifies co-ordination of works within BT and with others, reduces site visits and the dead time that can occur in the schedule of specialist gangs attending a site and reduces the duration of works on the street, hence reducing the disruption and inconvenience to highway users and the public.

- first-time permanent reinstatements or repairs avoid the double disruption of an interim reinstatement followed by permanent one.

3.2.2 Making sure that works are carried out to the right standard first time avoids the need for remedial works and the additional disruption that they cause. Creating a culture where this is the norm will benefit highway users and the contractors themselves.

3.3 Communications with the co-ordinating authority

3.3.1 Promoters carrying out works in the street should provide the co-ordinator in the authority with accurate and timely information about the works and in particular about when the works start and finish. They should inform the co-ordinator of any changes to the programme, including whether works are postponed or cancelled, or if there are changes to other aspects of the works, or if problems arise.

The co-ordinator can then assess the implications for co-ordination with other works and take action to mitigate any wider impacts.

3.4 Courtesy and consideration for the public

3.4.1 Sites that are tidy and well maintained, make proper arrangements for pedestrians and disabled people, and provide information about what is happening and why, will create a better impression with the public. Following the Safety at Street Works and Road Works Code of Practice will help the undertakers and highway authorities and their contractors to carry out safely the signing, lighting and guarding of all works on the highway. They should pay particular attention to:

- providing all necessary signing, lighting and guarding in good working order before the work commences, during the progress of work and outside normal working hours;

CASE STUDY

Yorkshire Water promoting consideration for people with disabilities

Yorkshire Water has worked with The Guide Dogs for the Blind Association to develop a training programme for helping their employees understand the impact of works on visually impaired pedestrians.

Figure 3.1 Guide dog and trainer walking a street works site

All operatives and supervisors working on the public highway attend a workshop that includes an introduction to the Disability Discrimination Act 1995 and 2005. It also includes a demonstration with a guide dog and its trainer, showing how careful attention to setting out a site properly can make a great difference to visually impaired people (Fig. 3.1).

The training programme has both raised the awareness of staff about disability issues and improved standards in the layout and protection of sites.

The programme has also raised funds to support the training of a guide dog.

CASE STUDY

Yorkshire HAUC CARE initiative

Yorkshire HAUC have established an initiative to improve the quality of signing and guarding at sites. Operatives are provided with pocket aide-memoire cards (Fig. 3.2), backed by posters, to emphasise:

Carry enough equipment

Achieve first-time results

Regularly maintain sites

Ensure speedy closure of works.

Operatives are also provided with a site matrix card to help them work out how many inspections would be needed to ensure that sites are kept in a safe condition. The matrix combines the probability of the site being vandalised and the likely danger arising if vandalism does occur to create a 'current risk exposure rating'. This allows a consistent approach to assessing this risk and the efficient deployment of resources to maintain safety.

Figure 3.2 A Yorkshire HAUC CARE card

- providing footway plates and ramps, and other aids that will help pedestrians, and especially people with disabilities, get round the site safely;
- providing information boards at the site to keep local people and highway users informed;
- good housekeeping on site, e.g. tidy stockpiles of material, adequately lit and guarded;
- respect for the local environment, avoiding unnecessary noise and nuisance;
- the maintenance and regular inspections of works outside normal hours;
- the removal of equipment, materials and signs from sites immediately after completion of the works.

3.5 Communication with the public

3.5.1 Promoters carrying out works should provide the public, including businesses and the local community, with advance information and details of any proposed major work, as described in Chapter 2. It is important that these communications should continue into the construction stage. Promoters should keep the public informed while works are going on, especially if there are changes to the programme. Information should include:

- what is being done and why;
- who is doing it and how to contact them;
- when is it being done and how long it will take;
- what inconvenience and disruption will be caused and what people can do to avoid it;
- how to obtain more information.

3.5.2 Promoters should pay particular attention to providing information to groups that will be particularly affected by the works or where special arrangements need to be made, for example, where provision is made for people with disabilities, or for people with children in the vicinity of a school, or for access to buildings or shops, or for goods delivery.

3.5.3 Information to the public can be provided in several ways, including:

- personal visits and/or written notification, particularly to frontagers affected by works;
- public meetings at key stages, especially for large or long-running works;
- at the roadside: traffic signs warning of forthcoming works and information boards on site – these are often the first source of information to the general public;
- the local media: this can be especially useful during major works, for example by providing more details about changes to traffic arrangements, for providing progress reports and giving information on revisions to the programme;
- local authority web sites: these can also be used to provide similar information in a readily accessible and easily updated form;
- a designated telephone contact point or drop-in centre: staff should be able to respond informatively to public enquiries.

(See also the case study in section 2.4)

3.6 Protecting the environment

3.6.1 Those promoting works in the street have a duty to protect the environment around the works. Measures that reduce disruption will bring environmental benefits, but there are specific aspects of works where action can be taken to protect the local environment, including:

- first-time permanent reinstatement or highway repair;
- environmental awareness in the selection and use of resources, recycling of material, waste management, reducing vehicle movements and the avoidance of pollution;
- avoidance of damage to trees and shrubs, particularly to the roots, and to verge damage by material storage;
- avoidance of damage to environmentally or archeologically sensitive sites, including designated conservation areas.

Information boards

Information boards (Fig. 3.3) must be provided at all utility works and should be provided forhighway works.

- The boards must comply with the requirements of the Safety at Street Works and Road Works Code of Practice and the Traffic Sign Regulations and General Directions (TSRGD). As a minimum, boards must include the name of the promoter and a telephone number for emergencies, but they should also contain other useful information, such as a description of the works and start and end dates.
- The information they contain should be kept up to date.

Information boards must not obstruct the footway, other pedestrian routes or the carriageway.

Information signs

- Temporary traffic signs (Fig. 3.4) intended for drivers to read should be large enough to be read safely by moving traffic. They can provide information about forthcoming and current works, e.g. location, timing, road closures (see TSRGD and Traffic Signs Manual Chapter 8).
- Signs can also carry explanations for what is going on, e.g. to explain why no one is working at a site – such as concrete curing.

Figure 3.3 Example of an information board for street works

Figure 3.4 Example of an information sign for road works

3.7 Maintaining quality

3.7.1 The quality of reinstatements and highway works can directly influence the life of the highway infrastructure and the assets within it. It is important that maintenance and reinstatement works are carried out to a high standard:

- to maintain the structural integrity of the highway and the integrity of apparatus beneath it;
- to produce a quality permanent reinstatement or highway repair that complies with the national or locally agreed performance criteria;
- to ensure the long-term performance of the highway infrastructure.

3.7.2 High standards of work can be achieved through:

- provision of training for operatives and supervisors, and by encouraging operatives to take ownership of the works;
- use of the appropriate equipment and materials, including recycled materials and re-processed materials where appropriate;
- compliance with the calibration and operational compaction requirements and end-performance specifications.

CASE STUDY
Sheepscar recycling facility

Northern Gas Networks and United Utilities operate a recycling plant in Sheepscar, Leeds, to process material excavated from trenches so that it can be reused in reinstatements.

Material from sites across West Yorkshire is brought to the depot, unsuitable material is removed and the remainder is crushed and screened (Fig. 3.5). The finer grade can be used as a pipe bed, while the other material is delivered to site and mixed with cement and water by a purpose-built vehicle to form Cement Bound Excavated Material Type 3. The mix can be varied to provide the required strength.

The facility has reduced the volume of material transported to landfill by 11,000 cubic metres per year and the amount of quarried virgin aggregate by 22,000 cubic metres, while maintaining the quality of the reinstatements and yielding financial benefits to the companies.

Figure 3.5 Sheepscar screener

CASE STUDY
100% inspections in Kirklees

Figure 3.6 Inspection of works in Kirklees

To ensure satisfactory reinstatements of trenches and repairs, Kirklees Metropolitan Council has been carrying out 100% inspection for all utility and highway works. This involves visual observation and coring of all trenches before the end of the guarantee period (Fig. 3.6).

Sharing this information with the utility companies allows benchmarking between companies and is aimed at improving the quality of reinstatements. Performance has improved as a result.

Better quality reinstatement reduces the need for remedial work and the disruption associated with that. It will also reduce the need for future maintenance activity.

Summary – minimising disruption and inconvenience during works

- Disruption from works can be reduced by:
  - minimising the extent of the site;
  - using an appropriate method of working;
  - working efficiently to minimise the duration of the works.
- Communication and courtesy for the public, and consideration for the environment, will mitigate the inconvenience caused by works.
- Maintaining high quality and doing the work right first time reduces further work later.

CHAPTER 4

Monitoring, feedback and improvement

4.1 Monitoring performance and tracking progress

4.1.1 It is expected that all parties working in the highway for the purposes of excavation, reinstatement and repairs should operate a quality assurance system. These systems provide customers and the public with confidence that the works will be carried out in a defined manner which produces a high-quality product.

4.1.2 Good information is key to monitoring performance and progress. This information should be shared and supported by good dialogue among all parties, working together to identify problems as early as possible, so that remedial action can be taken.

4.2 Dealing with problems

4.2.1 It is inevitable that there will be problems from time to time, whether from unexpected changes in circumstances, human error or misunderstandings, incomplete or inaccurate information, mechanical failure or other cause. Where problems do arise:

- they should be resolved as speedily as possible;
- where errors or mistakes are made, those involved should work together to put them right;
- discretion is required in how to handle these situations – it should not rely on mechanistic processes, but all parties should work together to find solutions that minimise disruption for the public.

4.3 Facilitating continuous improvement

4.3.1 All organisations involved in working on the highway should be committed to continuous improvement. There are developments taking place all the time in many aspects of these activities. All parties should have processes in place to respond to such changes and to promote better ways of working. This can be done through:

- maintaining and improving the skills and knowledge of the workforce;
- reviewing works carried out, including feedback from stakeholders, learning from problems encountered and overcome, and modifying practices accordingly;

Means of monitoring progress and performance

These can include:

- using IT systems to track progress and provide alerts if works appear not to be running to programme, allowing early discussion and action to address the situation;
- checks on contractors' performance at regular intervals on a random basis, enabling appropriate action to be taken where practices do not meet the required standards;
- regular reviews of the results of inspections, identifying where attention needs to be focused on improving performance;
- benchmarking among authorities and different companies working in the street, to compare performance and raise overall standards;
- use of key performance indicators, using standard indicators for all those working in the streets wherever possible.

CASE STUDY
Yorkshire HAUC joint training

In order to improve the quality of notices in the Yorkshire HAUC area, a joint training course was organised. Staff from both local authorities and utilities attended together.

The course was based on the 2001 Co-ordination Code of Practice. The aim was to come to a common understanding of what was required to meet the Code and appreciate the importance and benefits to both authorities and utilities of accurate and timely information.

A better understanding of these matters, achieved by working through the issues together, is improving the standard of notices in the region.

CASE STUDY
Birmingham post-works review

Birmingham City Council carries out a review on completion of any of their works to see how well they have been carried out and whether there are lessons to be learnt. The review includes collecting views from stakeholders affected by the works (Fig. 4.1), so that a full picture of the impact of the works is obtained.


Considerate Contractor
Streetworks Scheme
Customer Questionnaire

Figure 4.1 Birmingham post-works questionnaire leaflet

- reviewing with other parties ways of working to identify mutual benefits;
- adopting good practice from others working in the industry;
- adopting new technology and new techniques, including from other countries and other industries.

4.3.2 While some improvements will be specific to certain parts of industry, others will have widespread application. Some will apply within individual organisations; others will apply where organisations interact with one another. Much can be learnt from all parties working together to embed a commitment to continuous improvement.

4.3.3 This Good Practice Guide is commended as providing principles and examples of how all parties involved in works and other activities in the street can work well together to reduce disruption and inconvenience, as well as maintaining our highways and services infrastructure in good order.

4.3.4 Other mechanisms exist for exchanging good practice, not least through HAUC at national and local level, and these too are commended to works promoters and authorities' co-ordinators.

4.3.5 You are invited to become part of this promotion of good practice, and in particular to make this Guide a 'living' document, by submitting further examples of good practice to your regional Highway Authorities & Utilities Committee. These examples will be reviewed for inclusion in future versions of the Good Practice Guide.

CASE STUDY

East Midlands HAUC Performance Enhancement Group

The East Midlands HAUC has a standing Performance Enhancement Group to identify and collate good practice in the management of works, and to disseminate and promote that good practice among the local authorities and utility companies in the region.

CASE STUDY

London's Traffic Management Learning Hub

Transport for London, in collaboration with the London boroughs, has established a Traffic Management Learning Hub on the LondonStreetWorks web site. This will provide e-learning materials to help those involved in the co-ordination and management of works, and wider traffic management, in the capital.

Summary – achieving continuous improvement

- Good information, regular reviews and appropriate indicators are key to keeping track of performance.
- Problems should be resolved quickly and co-operatively.
- Authorities, promoters and contractors should look together for ways of learning from their own experience and that of others.
- Good practice should be adopted by all.
- Good practice will evolve and will need to be updated from time to time.

ANNEX A

Sample checklist for forward planning

A.1 Have you thought about the following?

- ☐ Early liaison among highway authorities, utilities, transport authorities, police, emergency services, contractors, businesses and the local community to review traffic management requirements, e.g. road closures, parking restrictions and temporary traffic orders;
- ☐ Obtaining up-to-date reference to records of apparatus and, where available, using digital map records to exchange plant details electronically, to improve safety and reduce the risk of damage;
- ☐ Using ground-penetrating radar (GPR) or three-dimensional mapping systems to locate apparatus and available ground capacity;
- ☐ Using trial holes to identify potential problems prior to the start of works, and sharing the results with all interested parties;
- ☐ Calculating the likely duration of works from past experience to develop a preliminary programme of works;
- ☐ Reviewing the variety of techniques and materials available to minimise the duration or extent of works;
- ☐ Using trench sharing or other joint working to reduce disruption and inconvenience;
- ☐ Identifying structures requiring special attention, such as bridges, subways and culverts, or surfaces using special materials;
- ☐ Identifying landscaped and environmentally sensitive areas, e.g. Conservation Areas, Sites of Special Scientific Interest, ancient monuments, countryside protection programmes;
- ☐ Identifying environmental constraints such as night-time noise restrictions;
- ☐ Reviewing work to see if it could be carried out outside normal working hours, to avoid delays and disruption;
- ☐ Surveying the site to obtain information about the local working environment.

ANNEX B

Useful documents and web sites

B.1 Documents

Regulations, guidance and codes of practice are updated from time to time. The document references below give only the generic name and not the date of the current version. Readers are directed to the web sites on this page to find the current versions of these documents.

- Traffic Management Act 2004 and associated regulations, statutory guidance and codes of practice
- New Roads and Street Works Act 1991 and associated regulations and codes of practice
- Highways Act 1980 and associated regulations and guidance
- *Practical Guide to Street Works* – June 2006
- Construction, Design and Management Regulations
- HSG47 Avoiding Danger from Underground Services
- Traffic Signs Regulations and General Directions
- Traffic Signs Manual Chapter 8
- National Joint Utilities Group guidance notes
- *Manual for Streets* – March 2007

B.2 Web sites

In addition to providing links to the current versions of the regulations, codes of practice etc, the web sites below contain other useful information and guidance for those carrying out activities on the street.

Department for Transport
www.dft.gov.uk

Welsh Assembly Government
www.wales.gov.uk

Office of Public Sector Information (including HMSO)
www.opsi.gov.uk

Health and Safety Executive
www.hse.gov.uk

Highway Authorities & Utilities Committee UK
www.haucuk.org

National Joint Utilities Group
www.njug.co.uk

London Street Works
www.londonstreetworks.net

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Department for Transport
Welsh Assembly Government

May 2007

Working Together: A Good Practice Guide to Managing Works in the Street

Our utility infrastructure needs to be maintained, improved and replaced. The road network too needs to be maintained and improved. The aim of this Good Practice Guide is to show how this can be carried out with least disruption to highway users, frontagers and local communities.

The Guide is commended to all promoters of works and other activities in the highway, including highway authorities and utility companies, their contractors and suppliers, as well as those within authorities involved in co-ordinating and managing those activities.

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