

Road Safety Comes of Age

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WSP Development and Transportation
Swire House
59 Buckingham Gate
London
SW1E 6AJ

Tel: +44 (0)20 7798 1960
Fax: +44 (0)20 7798 1961
<http://www.wspgroup.com>

Reg. No: 2382309



1 Synopsis

The Department for Transport has a history of funding local authorities to facilitate the development of new approaches to delivery of its prime objectives and targets. The current projects, Mixed Priority Routes, Neighbourhood Road Safety Initiative and Inner City Safety are aimed at the government's road safety casualty reduction targets, as set out in "Tomorrow's Roads, Safer for Everyone". With the increasing awareness of the impacts of deprivation and social exclusion these projects seek to challenge the compartmentalised approach of tradition road safety engineering and link it with the wider policy objectives at local and national levels.

This paper reflects some of the initial findings of the projects, which are all on-going and identifies the lessons learnt and the anticipated benefits of a more integrated approach to road safety on the communities affected.

2 Policy Drivers

Traffic engineering and activities associated with the delivery of road safety are fundamentally linked to the policy agenda of the time. In 2000 the Government published "*Tomorrows Roads: Safer for Everyone*"ⁱ. The policy document set out the now familiar key targets for the decade:

- a 40% reduction in the number of people killed or seriously injured in road accidents
- a 50% reduction in the number of children killed or seriously injured
- a 10% reduction in the slight casualty rate, expressed as the number of people slightly injured per 100 million vehicle kilometres.

The same targets were subsequently adopted by the Scottish Executive in the policy document "*Building a Better Scotland*".

The Office of the Deputy Prime Minister's Social Exclusion Unit then published the results of important work on the effects of deprivation on local communities, with specific reference to road safety ("*Making the Links: Final Report on Transport and Social Exclusion*"ⁱⁱ). The results of the research were striking:

- The most deprived local authority districts have about five times as many child accidents per head as the least deprived: around 2.5 accidents per 1,000 children compared to 0.5 accidents per 1,000 children.

More than 25% of child pedestrian injuries happened in the most deprived 10% of wards.

In July 2002, the casualty target for England was enhanced to address the significantly higher number of road accident casualties that occur in disadvantaged areas.

Nottingham – worked in partnership with Fire & Rescue and the local PCT to provide and fit car seats

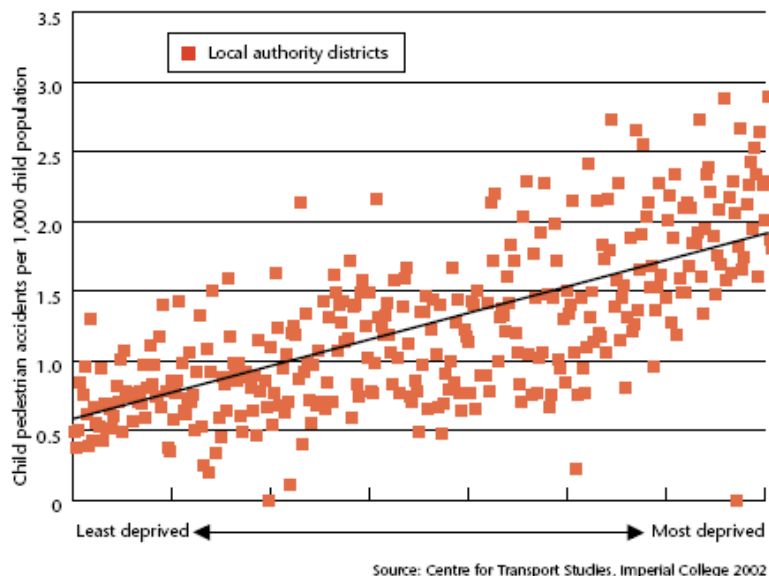


Figure 1 – Linking child pedestrian accidents and deprivation

In parallel there was an increasing recognition of the link between transport provision and social exclusion. This barrier had been highlighted in the Government’s *“National Strategy for Neighbourhood Renewal”*ⁱⁱⁱ as one of a number of factors contributing to disadvantage in deprived areas.

This provided empirical evidence of the real physical impact of transport as an agent in social exclusion. This had been recognised by the Scottish Executive in commissioning the study *“The Role of Transport in Social Exclusion in Urban Scotland”*^{iv} which found, amongst other things, that:

- Social exclusion associated with transport is more likely for women, the unemployed, elderly, people with health problems and those in low income groups
- These groups must rely more on walking, public transport and lifts from family, friends and neighbours
- Reliance on lifts and irregular car access is responsible for an increase in average journey times to reach local facilities
- Many people rely on friends and neighbours to overcome problems

The fundamental linkage between transport, social exclusion and regeneration is summed up well in *“Scotland’s Transport Future”*^v:

“Improved access to services combined with economic and other opportunities can make a vital contribution to the long-term regeneration of particular areas and communities. Therefore improving transport connections for these communities and reducing the need to travel should form part of wider regeneration strategies, while transport planning should seek to ensure that the regeneration needs of particular communities are met.”

3 The Department For Transport's Projects

Blackpool – provided training in the use of new highway infrastructure.

The Department for Transport, and its predecessors, has a history of funding local authorities to address real problems and through the experience developing guidance on techniques and approaches that have been demonstrated to work.

3.1 GLOUCESTER SAFER CITY

Of the current tranche of such projects the Gloucester Safer City^{vi} was the first. The project aimed to reduce accidents by one third during the lifetime of the project. The project took an holistic approach to the problems, delivering local road safety schemes, education, training, publicity and enforcement.

The project was a success, with killed and seriously injured accidents reduced by 38%, adult pedestrian casualties reduced by 22% and child pedestrian casualties reduced by 13%. At the same time the percentage of parents willing to let their children go to school on their own **increased** from 32% to 49%.

This project, having been conceived in advance of work on social exclusion and other related area, tended to concentrate on road safety as a means to an end. Later projects were developed through the framework of a wider remit for road safety.

3.2 MIXED PRIORITY ROUTES



Figure 2 – Cowley Road, Oxford, before treatment

Sandwell – used ethnic minority plays and workshops to deliver training

Roads with mixed priority characteristics tend to be associated with poor road safety statistics.

The Mixed Priority route project aims to show how main urban roads can be made safer and more pleasant for all users without causing major disruption to traffic. These roads fulfil an important function as traffic distributors but also often cut through local communities and shopping areas. In general, these roads are ones where the traffic distributor function means that engineering measures resulting in traffic re-routing elsewhere would not be acceptable.

The mixed frontage, frequently combining local retail, education, recreational and social functions along with residential properties means that pedestrian and cycle demand is high. However, on these roads conditions for pedestrians and are often poor and casualties tend to occur along the length of the route.



Figure 3 – Cowley Road, Oxford, after treatment

The Department funded a total of ten authorities across the country to take part in the project. The first awards were made in December 2001 and the final scheme is expected to be completed by March 2007. The locations were specifically chosen to challenge the successful candidates and to demonstrate road safety problems and appropriate solutions which are applicable to many other authorities.

The locations chosen therefore cover London, other metropolitan areas, county towns, single and two-tier authorities, areas in need of regeneration and those that are reasonably affluent.

The solutions to the problems experienced along these routes are predominantly in the form of highway engineering works. However, the Department is looking closely at non highway benefits which flow from these schemes..

Hull – used seats and other street furniture instead of bollards to reduce clutter



Figure 4 – Newlands Avenue, Hull, after treatment

3.3 NEIGHBOURHOOD ROAD SAFETY INITIATIVE

This initiative is driven by the enhanced road casualty target focused on dealing with disadvantage.. Fifteen authorities were chosen on the basis of the child pedestrian casualty records to receive assistance in tackling their road safety problems..

The authorities have been encouraged to consider broad-based solutions and to work in partnership with a range of local stakeholders. Targeted intervention should seek to break road accident causal chains at any number of points and authorities need to consider a variety of solutions including a mix of engineering, education, enforcement and publicity activities.

As part of the initiative a central team has been set up (<http://www.nrsi.org.uk/>) to provide central support to deliver strategic and collaborative support to the participating authorities. This is similar in concept to Road Safety Scotland which develops and co-ordinates Scotland-wide road safety initiatives and campaigns.

3.4 INNER CITY SAFETY DEMONSTRATION PROJECT

The project aims to show how a broad based, partnership approach can deliver casualty reduction and improved quality of life on an area wide basis in a disadvantaged urban area. The project will build upon the experiences from Gloucester Safer City, but will go further, building partnerships with a range of local authority and external service providers such as education, health, and social care. Effective community involvement will also be key in the development and delivery of the strategy. It is expected that the project will produce innovative solutions which tackle the root causes of accidents, rather than simply dealing with the symptoms.

Birmingham – use of GIS to collate and interpret information

4 Output From The Projects

It is hoped that lessons will be learnt which assist others in delivering projects locally. The areas where experience will be gained are expected to be:

- **Engineering** – whilst wholly new techniques are unlikely to be used, there will be evidence about finding appropriate solutions for the prevailing circumstances.
- **Consultation** – Delivering improvements in road safety to communities is always a difficult task and the lessons learnt will allow future projects to be delivered in a manner that more closely meets the needs of local communities
- **Community Involvement and making linkages in the community** – consultation is not the only form of involvement and a well-structured project can assist in delivering improvements in social capital. Engaging as many parties in the process of delivery means that other bodies may contribute to the investment and assist in future scheme delivery
- **Making linkages within the council and with the delivery sector** – recognising the dangers of a “silo mentality” is important in ensuring that road safety officers and traffic engineers engage widely with other service providers.
- **Regeneration** – how can road safety schemes deliver regeneration and what are the effects likely to be?
- **Evaluation** – traffic engineers are familiar with accident savings and first year rates of return – but how do we measure and quantify other benefits, and do they apply evaluation techniques to “fine tune” schemes post completion.

4.1 ENGINEERING

There have been no ground-breaking new techniques developed so far on these projects, however, a number of refinements of existing practice have been successfully applied, and valuable lessons have been learnt.

Beware the cost

Road safety engineering has been historically “low cost” to achieve the best rate of return on investment. However, for many authorities and the local people they represent, route treatments and the need to reach consensus with a diverse spread of stakeholders tends to produce high cost schemes with improved materials and finishes.. Investing in better material, finish or street furniture will have two effects:

- **Reduce the economic return** – these treatments are unlikely to deliver better safety benefits as a result of finish or materials and so the conventional economic measures will be reduced. It is therefore important in such circumstances to identify the additional benefits of such an approach.
- **Run-away costs** – it is all too easy to get carried away by public sentiment in specifying the works. Think carefully at the start of the process about the nature of the scheme. If improved materials are required will a regeneration budget be able to meet the marginal cost for example.

Consider Materials Carefully

Aside from the cost the wrong specification of material can be detrimental to the scheme. Choice of materials needs to take into account considerations about the restraints imposed by the cleansing regime, and future maintenance practicalities and costs. Whilst it will still deliver the road safety benefits the associated improvements, for

example in perception and inward investment may not be delivered. One consistent lesson coming from a number of schemes is related to fast food establishments.

For many inner city and local distributor frontages the existence of fast food can be taken as read. But paving materials are not always appropriate; consider the ability to clean the paving before specification in such circumstances. Consider also the costs of cleaning the paving through maintenance, especially if a new maintenance regime is required.

For bars and restaurants consider barrel drops as well. Without careful design and consultation a poorly located barrel drop may result in obstruction of the footway by delivery vehicles and attendant problems of cracking from vehicle loading and from the barrels.

Project Management

Many authorities have developed skill sets for traffic engineering/road safety that are in line with the levels of funding available. As a result the teams responsible for delivering road safety are most familiar with small scale, quick turnaround schemes.

Recognise this when taking on a larger scheme with multiple partners and wider objectives. To deliver the schemes requires a focus, drive, and familiarity with programming of activities which is lacking in many cases.

Innovation

Some new applications of established techniques have been delivered. Good examples include:

- “rest on red” traffic signals resulting in reduced vehicle speeds and improved pedestrian permeability
- Use of minimalist kerbing to define traffic islands
- Combining lighting and traffic signal feeds and mounting in one column, reducing street clutter
- Use of informal pedestrian crossings in association with traffic calming features

4.2 CONSULTATION

For schemes attempting to deliver on the aspirations of a wide section of the local community consultation is vital. This is even more so where regeneration is on the agenda as many decisions are based more on perception than fact and so are least capable of being dealt with from a purely engineering perspective.

What is clear from the experience of these projects is that effort and imagination are key to the success of consultation. Amongst the techniques that have been found to be successful are:

- **Street fairs** – allow road safety to form part of a wider activity thus engaging a wider spectrum of the local community. Make sure that age groups and other sections of the community are catered for in terms of entertainment but also in terms of involvement in road safety. It is a great way of getting local traders associations involved and engaged in the process as well.
- **School children’s safety perspective** – in many instances school age children form one of the groups impacted on by road safety. Photographic travel diaries using disposable cameras, journey to school travel diaries and interactive travel planning provide opportunities for children to be involved in planning for their own safety.

Hull – involved the local community in planning and phasing the works



Figure 5 – Casualty Reduction Outreach day, Bradford



Figure 1 - Community Involvement in Action

- **Consultation through partners** – many of the best links into the community are with other parts of the council or its partners. In many cases there are long-standing and trusting relationships, for example with health workers, that are more effective at giving and receiving messages that those which Road Safety Offices have.

It is also vital to be watchful of some of the pitfalls in undertaking consultation. Some examples of problems in consultation include:

- **Watch your language** – it is vital to know who your audience is. One authority sent out consultation leaflets in English when more than 2/3rd of the population are from “minority ethnic” groups and more than 80% of children speak a second language. In such cases response rates will be low.

Liverpool – “Our Walk to School” allowed children to map and film hazards on the journey to school

- **Accessibility** – public exhibitions and interactive events are usually a success, bringing a wide cross-section of the local community together. However, make sure an accessibility audit is completed of the venue otherwise the elderly and mobility impaired are unlikely to attend.
- **Communication strategies** – many authorities have internal communication teams that assist with corporate information dissemination. Their assistance is valuable but beware of techniques and approaches that are targeted at the whole of the area rather than considering in detail the subtleties of the local community.

4.3 COMMUNITY INVOLVEMENT

Community involvement is more than just the short term involvement of local people and businesses in consultation activities. It is about embedding local stakeholders in the decision-making process. This has great benefits in terms of gaining ownership of the decisions that are made, generating consensus and compromise and generating a sense of belonging and involvement so important in delivering improvements in “social capital”¹.

Examples where such involvement has led to real benefits, not only in terms of the successful delivery of the scheme but also in the sense of belonging and involvement, which is so important in improving social capital include:

- **Local steering committees** – a number of authorities set up local steering committees with a variety of roles including discussing and determining the construction phasing of the scheme and determining how road safety training would be delivered.
- **Using the local community groups to test approaches** – in a number of cases the authority identified a need for a publicity and awareness campaign but were uncertain how best to deliver it. Local community groups representing specific social groups were engaged and the approach “tested” on them to develop as targeted and relevant approach as possible.

4.4 MAKING LINKAGES WITHIN THE COUNCIL AND THE DELIVERY SECTOR

One of the most important messages that has come out of all of the work done so far across all of the schemes is that working across departments within the Council and with others involved in delivering services to the public is both challenging and beneficial.

The Neighbourhood Road Safety Initiative in particular has challenged the traffic engineering and road safety teams to think beyond the normal boundaries of delivery. Linkages have been made with diverse parts of the authority including social services, health, parks and leisure and the regeneration/economic development teams. In many cases the schemes delivered are the first ones where the road safety group has worked in partnership with these parts of the authority.

Likewise, linkages beyond the council but still within the public sector have been forged where the objectives of a variety of groups have been aligned and a valuable and sustainable intervention has been delivered.

As might be expected these relationships do not emerge over night and require some work and perseverance. This has particularly been the situation in a number of authorities where the Local Strategic Partnerships (LSPs) have been evolving during the lifetime of the project.

¹ Social capital describes the pattern and intensity of networks among people and the shared values which arise from those networks. While definitions of social capital vary, the main aspects are citizenship, neighbourliness, trust and shared values, community involvement, volunteering, social networks and civic participation.



5 Findings

At present the findings are limited as a number of the projects have some time to run. However, there are a number of clear success stories and trends that can be reported:

- Regeneration
 - House prices increasing ahead of local trends
- Economy
 - Local investment in properties
 - New business towards the higher end
- Community development
 - Stronger community groups
 - Developing links to groups previously not engaged in local decision making
- Safety
 - Significant casualty reductions, more than 50% in some cases
 - Need a period of stability
- Accessibility
 - Hull – pedestrian movements up by 18%
- Partnership
 - Centralising the resource for the development of area-wide initiatives, especially those requiring specific and rare skills is a success
 - Many other public sector organisations have objectives closely aligned to those of road safety, e.g. Primary Care Trusts



References

- ⁱ Tomorrows Roads: Safer for Everyone, Department for Transport, 2000
- ⁱⁱ Making the Links: Final Report on Transport and Social Exclusion, Office of the Deputy Prime Minister, 2003
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- ^{iv} The Role of Transport in Social Exclusion in Urban Scotland, Scottish Executive, 2001.
- ^v Scotland's Transport Future, Scottish Executive, 2004
- ^{vi} Report on the Gloucester Safer City Project, Department for Transport, 2001