



Transportation and Engineering Policy Unit
Room 3.29, Clarence Court, 10-18 Adelaide Street,
Belfast BT2 8GB



15 January 2009

SETTING LOCAL SPEED LIMITS IN NORTHERN IRELAND

CONTENTS

1. Introduction	2
2. Background and objectives	6
3. The underlying principles of setting local speed limits	10
4. The legislative framework	16
5. Urban speed management	21
20 mph speed limits and zones	22
Traffic calming measures	23
40 and 50 mph speed limits	24
6. Rural speed management	25
Single carriageway rural roads and the speed assessment framework	28
Dual carriageway rural roads	31
Villages	31
7. Variable Speed Limits at Schools	33
8. References/Bibliography	37
Appendix A Summary of proposed main changes to speed limit signing regimes in the traffic signs regulations	42
Appendix B Traffic calming measures suitable for urban roads	43
Appendix C Speed limits in urban areas	46
Appendix D Speed limits for single carriageway roads in rural areas	47
Appendix E Speed assessment framework – new approach to speed limit setting for single carriageway roads in rural areas	48
Appendix F Equality of Opportunity Screening Analysis	54

SECTION 1:

INTRODUCTION

Key points

Speed limits should be evidence-led, self-explaining and seek to reinforce people's assessment of what is a safe speed to travel. They should encourage self-compliance and not be seen by drivers as being a target speed at which to drive in all circumstances.

Roads Service, on behalf of the Department for Regional Development (The Department), sets 'local speed limits' in situations where local needs and considerations deem it desirable for drivers to adopt a speed which is different from the national speed limit. Local speed limits could be reduced or increased, depending upon the conditions and evidence.

This guidance is to be used for setting all local speed limits on single and dual carriageway roads in both urban and rural areas.

This guidance should also be used as the basis for future assessments of local speed limits, for developing route management strategies and for developing speed management strategies required as part of any transport planning process.

Roads Service should review the speed limits on all upper tier roads in Northern Ireland within five years of the publication of this document prior to the subsequent implementation of any necessary changes in accordance with this guidance.

1. Balancing the need to travel with the need to improve quality of life is a key objective of the Department. It is also reflected in wider government policies aimed at overcoming social exclusion and strengthening rural communities. The Department is committed to reducing road traffic collisions and casualties, and developing safer environments for all road users, within a road system which aids wider economic and environmental objectives in a sustainable way. The promotion of safe and considerate driving and encouraging road users to adopt appropriate speeds on our roads are major parts of this work.
2. Effective speed management involves many components designed to work together to encourage, help and require road users to adopt appropriate and safe speeds. Speed limits play a fundamental role. They are a key source of

information to road users, particularly as an indicator of the nature and risks posed by that road to both themselves and other motorised and non-motorised road users. Speed limits should, therefore, be evidence-led, self-explaining and seek to reinforce people's assessment of what is a safe speed to travel. They should also encourage self-compliance and not be seen by drivers as being a target speed at which to drive in all circumstances.

3. In Northern Ireland, the overall speed limit framework, including the setting of national limits for different road types, and the exceptions to the general limits that can be applied, is the responsibility of the Department at core level. The three national speed limits are:
 - the 30 mph speed limit on street lit roads (sometimes referred to as Restricted Roads)
 - the national speed limit of 60 mph on single carriageway roads
 - the national speed limit of 70 mph on dual carriageways and motorways
 - These national limits are not, however, appropriate to all roads. The speed limit regime enables Roads Service traffic managers to set 'local speed limits' in situations where local needs and considerations deem it desirable for drivers to adopt a speed which is different from the respective national speed limit.
4. Local speed limits are determined by Roads Service traffic managers under Article 38 of the Road Traffic Regulation (Northern Ireland) Order 1997.
5. This revised guidance retains and builds upon many of the underlying principles of the original guidance in the Roads Service Manual Section 1804. However, it also reflects some of the important developments in speed management policies and research, including the extended knowledge of the relationship between speed and the risk of collision and severity of injury, and of the actual speeds being driven on rural roads. The guidance also gives some examples of the type of roads on which particular speed limits might be suitable and sets out key elements of speed limit legislation, including signing rules and requirements.
6. The guidance is based on the Guidance developed by the Department for Transport (DfT) for roads in England, which, in turn, had been compiled with the help of a number of organisations both within and outside government¹. Although primarily aimed at traffic managers responsible for setting local speed

¹ Including Department for Transport, Highways Agency, Department for Environment, Food and Rural Affairs, Countryside Agency, County Surveyors' Society, Association of Chief Police Officers, Scottish Executive, Welsh Assembly, Roads Service Northern Ireland, Transport Research Laboratory and University College London

limits, it is also designed to help improve the wider understanding of why and how local speed limits are determined.

7. The guidance is to be used for setting all local speed limits on single and dual carriageway roads in both urban and rural areas. It brings together the main features of other published guidance on speed limit related issues, including speed-related road traffic regulation and signing, street lighting, traffic calming, speed limits in villages, and 20 mph speed limits and zones.
8. The guidance should not, however, be used in isolation, but read in conjunction with the more comprehensive advice on these matters set out in the appropriate Traffic Advisory Leaflets and with the relevant legislation, including The Traffic Signs Regulations (Northern Ireland 1997). Further information is also available from DfT's 'A Road Safety Good Practice Guide (DTLR, 2001)
9. The guidance is structured as follows:
 - Section 2 outlines the background to the guidance and its objectives.
 - Section 3 identifies who is responsible for determining local speed limits on which roads and the underlying principles that should guide such decisions.
 - Section 4 summarises the legislative framework governing the setting of local speed limits, including street lighting and speed limit signing.
 - Section 5 provides specific guidance on the setting of local speed limits in urban areas.
 - Section 6 provides specific guidance on the setting of local speed limits in rural areas.
 - Section 7 provides guidance on the provision of variable speed limits.
 - Section 8 is a bibliography of the references to other documents contained in this advice.
 - Appendix A summarises the main changes to speed limit signing regimes in The Traffic Signs Regulations (Northern Ireland) 1997
 - Appendix B identifies some of the main traffic calming measures suitable for urban roads.
 - Appendix C is a summary table of speed limits in urban areas.

- Appendix D is a summary table of speed limits for single carriageway roads in rural areas.
- Appendix E provides guidance on using the speed assessment framework to help set local speed limits on single carriageway roads in rural areas.

Priorities for Action

10. The guidance in this Circular should be used as the basis for future assessments of local speed limits, for developing route management strategies and for developing the speed management strategies.
11. Local Roads Service traffic managers are required to keep their speed limits under review with changing circumstances. It will not be possible to implement and bring about all of the objectives set out in this guidance overnight. Traffic managers, however, should review the speed limits on all upper tier roads, within 5 years of the publication date of this document prior to the subsequent implementation of any necessary changes to speed limits in accordance with this guidance. Consistent with their responsibility in respect of road safety, Roads Service will wish to focus the use of speed management measures, including more appropriate speed limits, or a combination of these methods, on those roads or routes (not just on upper tier roads) with the most pressing problems of collisions and injuries, or where there is a widespread disregard for current speed limits.
12. This guidance will continue to be reviewed in light of experience and future policy developments. Roads Service intends to monitor and evaluate its usefulness and review the results of its use on the ground. This information will be assessed as part of the regular review of the government's road safety strategy

SECTION 2: BACKGROUND AND OBJECTIVES OF THE POLICY

This section outlines the background to the guidance and its objectives.

Key points

Roads Service traffic managers continue to have the flexibility to set local speed limits that are appropriate for the individual road, reflecting local needs and taking account of all local considerations.

Local speed limits should not be considered in isolation, but as part of a package with other measures to manage vehicle speeds.

Background

Speed Management Policy in GB

13. The 1997 White Paper, The Future of Transport, included a commitment to develop a speed management policy that would take account of the contribution of appropriate speeds to environmental and social objectives, as well as to road safety.
14. This resulted in New Directions in Speed Management (DETR, 2000a), a detailed review of speed management policies, which drew upon extensive speed-related research and evidence from around the United Kingdom and around the world. The review concluded that a national framework was needed for determining speeds on all roads with limits that were rational, consistent, readily understood and appropriate for the circumstances. Local Roads Service traffic engineers therefore continue to have the flexibility to set local speed limits that are right for the individual road, reflecting local needs and taking account of all local considerations.
15. New Directions in Speed Management was published in conjunction with Tomorrow's Roads – Safer for Everyone, the government's road safety strategy (DETR, 2000b), which set out a framework for delivering further improvements in road safety for all road users and established long-term casualty reduction targets to be achieved by 2010.

16. Subsequently, the UK Government undertook, in the Transport Act 2000, to examine the procedures and processes for developing and implementing a possible 'hierarchy' of rural roads for speed management purposes – that is to say, a system under which different speed limits would be set for different road types according to their function. The conclusion, reported to Parliament in 2001, was that a formal hierarchy of this type throughout the rural community would be costly both financially and in terms of environmental intrusion because of the additional signing that would be required to indicate the different speed limits. Moreover, given the necessary infrastructure and behavioural changes required, the road safety benefits would take too long to realise.
17. However, the report made a number of recommendations, including the development of a speed assessment framework as a tool to assist local traffic managers in assessing and making decisions on what is an appropriate speed limit on single carriageway rural roads.

Speed Management Policy in Northern Ireland

18. A Northern Ireland Road Safety Strategy (2002-12) was published in November 2002. This strategy established two new challenging casualty reduction targets:
 - 33% reduction in the number of people killed or seriously injured to fewer than 1200 in 2012
 - 50% reduction in the number of children killed or seriously injured to fewer than 125 by 2012

Progress against these targets is monitored regularly and they will be subject to regular review.
19. The Road Safety Strategy is structured around six main themes that reflect the needs of both motorised and non-motorised road users. At its core is a major focus on three areas – driver behaviour, enforcement and a safer driving environment. This is often characterised as the 'three Es' – education, enforcement and engineering.
20. Research has in particular proven the correlation between speed and collision frequency and severity, and collision reductions. Much of this evidence has been demonstrated by and around mean vehicle speeds including, for example, how each 1 mph reduction in average speed reduces collision frequency by 5% (Finch et al., 1993; Taylor et al., 2000). 'Safer speeds' was therefore a part of one of the six themes in the road safety strategy, reflecting the important contribution that effective speed management can make towards delivery of the 2012 casualty reduction targets. The revision of this guidance was one of a number of speed management commitments in the road safety

strategy.

21. The speed assessment framework is now being used to inform work on rural speed management, and this guidance includes, the use of such an assessment framework (paragraph 99 and Appendix E refers) to help Road Service traffic engineers reach more transparent decisions when the choice of appropriate speed limit is not clear.

Objectives

22. The key objectives of this guidance are:

- the provision of up-to-date and consistent advice on the setting of speed limits
- improved clarity on the setting of speed limits which will aid greater consistency across the region
- the setting of more appropriate local speed limits, reflecting the functions of the road/street, including reduced or increased limits where conditions dictate
- local speed limits that better reflect the needs of all road users, not just motorised vehicles
- improved quality of life for local communities and a better balance between road safety, accessibility and environmental objectives, especially in rural communities
- improved recognition and understanding by road users of the risks involved on different types of road, the speed limits that apply, and the reasons why
- improved respect for speed limits, and in turn improved self compliance
- continued reductions in the number of road traffic collisions, injuries and deaths in which excessive or inappropriate speed is a contributory factor

23. Speed limits are, however, only one element of speed management. Local speed limits should not be set in isolation. They should be part of a package with other measures to manage speeds. This includes engineering and landscaping standards that respect the needs of all road users and raise the driver's awareness of their environment, together with education, driver information, training and publicity. Within their overall network management responsibilities, these measures should enable traffic engineers to deliver speed limits and driven speeds that are safe and appropriate for the road and its surroundings. It will also help drivers to be more aware of the road environment and assess their own appropriate speeds at all times.
24. Indeed, if a speed limit is set in isolation, or is unrealistically low, it is likely to be ineffective and lead to disrespect for the speed limit. As well as requiring significant, and avoidable, enforcement costs, this may also result in substantial numbers of drivers continuing to travel at unacceptable speeds, thus increasing the risk of collisions and injuries.

DRAFT

SECTION 3:

THE UNDERLYING PRINCIPLES OF LOCAL SPEED LIMITS

This section identifies who is responsible for determining local speed limits, on which roads, and the underlying principles which should guide such decisions.

Key points

Roads Service, on behalf of the Department, is responsible for determining all local speed limits on Northern Ireland's road network.

It is important that Roads Service and the Police Service of Northern Ireland (PSNI) work closely together in determining, or considering, any changes to speed limits.

Alternative speed management options should always be considered before a new speed limit is introduced.

The underlying aim should be to achieve a 'safe' distribution of speeds which reflects the function of the road and the impacts on the local community. The needs of vulnerable road users must be fully taken into account.

Local traffic managers will wish to satisfy themselves that the benefits exceed the disbenefits before introducing or changing a local speed limit.

Local speed limits are determined using a series of underlying principles.

What the road looks like to road users should be a key factor when setting a speed limit.

Mean speeds should be used as the basis for determining local speed limits. These are underpinned by extensive research demonstrating the well proven relationship between speed and collision frequency and severity, and also reflect what the majority of drivers perceive as an appropriate speed to be driven for the road.

The minimum length of a speed limit should generally be not less than 600 metres to avoid too many changes of speed limit along the route.

Speed limits should not be used to attempt to solve the problem of isolated hazards, such as a single road junction or reduced forward visibility such as a bend.

Responsibility for Local Speed Limits

25. Roads Service is responsible for determining all local speed limits on the whole of the Northern Ireland road network. Reflecting wider road safety partnership working arrangements, it is important that Roads Service and PSNI traffic personnel work closely together in determining, or considering, any changes to speed limits.
26. All speed limits other than the national limits are made by speed limit order. Further details are set out in Section 4, the legislative framework. The Department consults persons considered appropriate in compliance with paragraphs 1 and 2 of Schedule 5 of the Road Traffic Regulation (Northern Ireland) Order 1997.

Considerations in Setting Local Speed Limits

27. A study of types of crashes, their severity, causes and frequency, together with a survey of traffic speeds, should indicate whether an existing speed limit is appropriate for the type of road and mix of use by different groups of road users, or whether it needs to be changed. Concerns may also have been expressed by the local community. It may well be that a speed limit need not be changed if the collision rate can be improved or wider quality of life objectives achieved by other speed management measures. These alternative options should always be considered before proceeding with a new speed limit.
28. There will be roads, or stretches of road, that suffer from poor compliance with the existing speed limit. Where this happens and the speed limit is considered to be appropriate for the road, there may be a mismatch between the appearance of the road and the driver's or rider's perception of the risks of a collision. Or a lower speed limit may have been applied to reduce severance of a local community produced by fast-moving traffic. If local engineering and/or education solutions have been tried and the road is either unsuitable or inappropriate for major engineering changes, some form of enforcement may be necessary. However, it is again important that relevant staff from Roads Service and PSNI work closely together before any remedial action is taken.
29. Before introducing or changing a local speed limit, Roads Service traffic managers will wish to satisfy themselves that the benefits exceed the disbenefits. Many of the costs and benefits do not have monetary values associated with them, but Roads Service traffic managers should take into account the following:
 - collision and casualty savings
 - traffic flow and emissions

- journey times for motorised traffic
- journey-time reliability
- the environmental impact, including air quality and emissions
- the level of public anxiety
- the level of severance by fast-moving traffic
- conditions and facilities for vulnerable road users
- the cost of associated engineering or other physical measures and their maintenance
- the cost and visual impact of signing and possible environmental impact of engineering or other physical measures
- the cost of enforcement

The Underlying Principles

30. The underlying aim of speed management policies should be to achieve a 'safe' distribution of speeds that reflects the function of the road and the impacts on the local community. This should imply a mean speed appropriate to the prevailing conditions, and all vehicles moving at speeds as close to the posted speed limit as possible.
31. As well as being a key indicator of whether a local speed limit is appropriate, the estimated collision and injury savings should also be an important factor when considering changes to a local speed limit.
32. A key factor when setting a speed limit is what the road looks like to the road users, such as its geometry and adjacent land use. Drivers are likely to expect and respect lower limits, and be influenced when deciding on what is an appropriate speed, where they can see there are potential hazards, for example outside schools, in residential areas or villages and in shopping streets.
33. A principal aim in determining appropriate speed limits should, therefore, be to provide a consistent message between the road geometry and environment, and for changes in speed limit to be reflective of changes in the road layout and characteristics. The following will be important factors when considering what is an appropriate speed limit:

- road function (strategic, through traffic, local access etc.),
 - road geometry (width, sightlines, bends, junctions and accesses etc.),
 - road environment (rural, residential, shop frontages, schools etc.),
 - density of adjacent development, and
 - traffic composition (including existing and potential intensity of pedestrian and cycle usage).
34. Different road users perceive risks and appropriate speeds differently, and drivers and riders of motor vehicles often do not have the same perception of the hazards of speed as do pedestrians, cyclists and equestrians. The needs of vulnerable road users must be fully taken into account in order to further encourage these modes of travel and improve their safety. Setting appropriate speed limits is a particularly important element in urban safety management, with significant benefits for pedestrians and cyclists. Similarly, as vehicle speeds are generally higher on rural roads, collision severity and the risk to vulnerable road users are also greater. In both situations speed management strategies should seek to protect local community life.
 35. In order to influence driven speeds to below a new lower local limit, it is important that the limit is signed correctly and consistently. Any new limit should also be accompanied by education and, where appropriate, effective engineering changes to the road itself. Without these measures, the actual driven speeds are unlikely to be reduced to below the new limit.
 36. On rural roads there is often a difference of opinion as to what constitutes a reasonable balance between risk of a collision, travel efficiency and environmental impact. Higher speed is often perceived to bring benefits in terms of shorter travel times for people and goods. However, evidence suggests that when traffic is travelling at constant speeds, even at a lower level, it may result in shorter and more reliable overall journey times. With inappropriate speed for the conditions also come costs, the greatest of which is death and injury to people, increased community severance, and environmental impacts. The objective should be to seek an acceptable balance between costs and benefits, so that speed-management policies take account of environmental, economic and social effects as well as the reduction in casualties they may achieve.
 37. Mean speeds and 85th percentile speeds (the speed at or below which 85% of the traffic is travelling) are the most commonly recorded characteristics of speed. Local traffic managers should continue to routinely collect and assess both, but mean speeds should be used as the basis for determining local speed limits. This is a change from the use of 85th percentile speed in Section 1804 of

the old Roads Service Manual. As explained in paragraph 17, the use of mean speeds is underpinned by extensive research demonstrating the well proven relationship between speed and collision frequency and severity. They also reflect what the majority of drivers perceive as an appropriate speed to be driven for the road, and are felt to be easier for road users themselves to understand.

38. For the majority of roads there is a consistent relationship between mean speed and 85th percentile speed. Where this is not the case, it will usually indicate that drivers have difficulty in deciding the appropriate speed for the road, suggesting that a better match between road design and speed limit is required. It may be necessary to consider additional measures to reduce the larger than normal difference between mean and 85th percentile speeds or to bring the speed distribution more in line with typical distributions. The aim should be to align the local speed limit so that the original mean speed driven on the road is at or below the new posted speed limit for that road.
39. The minimum length of a speed limit should generally be not less than 600 metres to avoid too many changes of speed limit along the route. In exceptional circumstances this can be reduced to 400 metres for lower speed limits, or even 300 metres on roads with a purely local access function or where there is a variable speed limit in place outside a school. Anything shorter is not recommended and local police should be consulted to ensure that they would be able to enforce speed limits in those areas. The length adopted for a limit will depend on the limit applied and also on the conditions at or beyond the end points. The terminal points of speed limits need to take account of the particular local circumstances, such as steep gradients, sharp bends, hump-backed bridges or other hazards, and also good visibility of the signs. Similarly, an extension may be required to provide good visibility of the speed limit signs. A limit may also need to be extended to cover any new access to an industrial or residential estate.
40. For consistency, it is important that, within routes, separate assessments should be made for each length of road of 600 metres or more for which a different speed limit might be considered appropriate. When this is completed, the final choice of appropriate speed limit for individual sections might need to be adjusted to provide reasonable consistency over the route as a whole.
41. Occasionally it may be appropriate to use a length of 40 mph or 50 mph speed limit as an intermediate transition between a length of road subject to a national limit and another length on which a lower limit is in force, for example on the outskirts of villages or urban areas with adjoining intermittent development. However, the use of such transitional limits should be restricted to sections of road where immediate speed reduction causes real difficulty or is likely to be less effective.

42. Speed limits should not be used to attempt to solve the problem of isolated hazards, for example a single road junction or reduced forward visibility such as a bend, since speed limits are difficult to enforce over such a short length. Other measures, such as warning signs, carriageway markings, junction improvements, superelevation of bends and new or improved street lighting, are likely to be more effective. Similarly, the provision of adequate footways can be an effective means of improving pedestrian safety as an alternative to lowering a speed limit over a short distance.
43. Where several roads with different limits enter a roundabout, the roundabout should be restricted at the same level as the majority of the approach roads. If there is an equal division, for example where a 30 mph road crosses one with a limit of 40 mph, the roundabout itself should take the lower limit. If all the approach roads have the same limit, the roundabout should have that same limit.
44. As set out at paragraph 3, the main purpose of local speed limits is to provide for situations where it is considered appropriate for drivers to adopt a speed that is different from the national speed limit. However, that limit does not imply that it is a safe speed under all conditions, and drivers should be encouraged to adopt still lower speeds if conditions warrant.

DRAFT

SECTION 4:

THE LEGISLATIVE FRAMEWORK

This section summarises the legislative framework governing the setting of local speed limits and speed limit signing.

Key points

All speed limits, other than those on Restricted roads, should be made by order under Article 38 of the Road Traffic Regulation (Northern Ireland) Order 1997.

Unless an order has been made and the road is signed to the contrary, a 30 mph speed limit applies where there is a system of street lamps throwing light on the carriageway and placed not more than 185 metres apart.

The Department has a responsibility to erect and maintain prescribed speed limit signs on the roads under The Road Traffic Regulation (Northern Ireland) Order 1997.

If the Department wishes to deviate from that which is prescribed, it also has the power to authorize signs under Article 28 of The Road Traffic Regulation (Northern Ireland) Order 1997. Signing that is contrary to the Regulations must not be installed without first seeking authorisation.

Local traffic managers are not permitted to erect different speed limit signs relating to different classes of vehicle.

Vehicle-activated signs must not be used as an alternative to standard static signing, but as an additional measure to warn drivers of a potential hazard or to remind them of the speed limit in force.

Main Speed Limit Legislation

45. Most road traffic law pertaining to speed limits is contained in The Road Traffic Regulation (Northern Ireland) Order 1997. Other relevant legislation includes the Roads (Northern Ireland) Order 1993 and the Motor Vehicles (Speed Limits) Regulations (NI) 1989.

46. Part VI of the Road Traffic Regulation (Northern Ireland) Order 1997 deals specifically with speed limits, Article 37 defines a restricted road as a road which is provided with “a system of street lighting furnished by means of lamps placed not more than 185m apart” or there is an order in force making a road a restricted road. Article 36 specifically makes it an offence for a person to drive a motor vehicle at a speed of more than 30 mph on a restricted road.
47. The establishment of speed limits is also a method through which legal sanctions can be brought to bear on those who exceed the limit set on a particular road. It is therefore important to preserve carefully all records relating to the making and validity of a speed limit and speed limit signs.
48. All speed limits, other than those on restricted roads, should be made by order under Article 38 of the Road Traffic Regulation (Northern Ireland) Order 1997.
49. Article 37 (3) gives traffic managers powers to remove restricted road status, and give restricted road status to roads which are not restricted. However, the Department’s policy on the use of this power is that it should be used only to reinstate restricted road status in those cases where a road which has a system of street lighting has previously had its restricted road status removed.
50. If a road with street lighting has a 40 mph limit and this is to be reduced to 30 mph, it is necessary to both revoke the 40 mph order under Article 38 and apply Article 37 to reinstate restricted road status. Similarly, where a speed limit of 30 mph is imposed by order under Article 38 because there is no street lighting, that order should be revoked if street lighting is subsequently provided.

Street Lighting

51. As set out in paragraph 46, it is generally recognised that a ‘system’ of street lighting could be three or more lamps spaced not more than 185 metres apart.
52. Roads Service policy has always stated that speed-limit repeater signs should not be placed along a road on which there was carriageway lighting not more than 185 metres apart and which is subject to a 30 mph speed limit. This direction applies regardless of how the speed limit had been imposed. Although the Highway Code clearly states the link between street lighting systems and the 30 mph speed limit, the Department is aware of the general road user’s lack of knowledge of this rule. There may also be locations on high standard urban roads where drivers are confused as to the pertaining speed limit and this can be reflected in average speeds being significantly above the 30 mph speed limit. Recent investments in rural street lighting has also resulted in a proliferation of sites where the speed limit drops to 30 mph by default unless there has been a corresponding order made to de-restrict that stretch of road. If the Department was to permit the facility to erect speed limit

repeater roundels on 30 mph roads, this would result in an unnecessary investment in additional signing and contribute significantly to additional sign clutter on urban roads.

53. The Department will not make exceptions to this rule. This means it should be assumed that, unless an order has been made and the road is signed to the contrary, a 30 mph speed limit applies where there are three or more lamps throwing light on the carriageway and placed not more than 185 metres apart.

Speed Limit Signing

54. Whilst increased understanding and acceptance of speed limits will help compliance, drivers are ultimately aided by clear, visible and regular signing which enables them to unhesitatingly know what speed limit is in force.
55. Under The Road Traffic Regulation (Northern Ireland) Order 1997 it is the responsibility of the Department to erect and maintain prescribed speed limit signs on the roads. The Traffic Signs Regulations (TSR) (Northern Ireland) 1997 prescribes the designs for traffic signs, including speed limit signing in Northern Ireland. Roads Service accepts as good practice the principles as to how traffic signs should be used, as set out in the Directions section of the GB Traffic Signs Regulations and General Directions 2002
56. Traffic managers must follow these Regulations when signing speed limits. If the Department wishes to deviate from that which is prescribed it also has the power to authorise signs. This power of authorization does not extend to varying signs already prescribed, but is restricted to authorizing signs “of a different character” to those included in TSR.
57. Care should be taken to ensure that all signs displaying a mandatory speed limit either comply fully with the regulations or have been specially authorised. Signs that do not strictly follow the Regulations or have not been specially authorised are not lawfully placed. A person who fails to comply with a speed restriction shown in a traffic sign is generally charged with an offence under Article 43 of the Road Traffic regulation (Northern Ireland) Order 1997. However, where the sign is not lawfully placed, no offence is committed by the person speeding under that section, resulting in failed prosecutions. Traffic managers should therefore remove any such signs, bring them into compliance with the Regulations or obtain special authorisation.
58. Article 39 of the Road Traffic Regulation (Northern Ireland) Order 1997 gives the Department powers to restrict the speed of particular classes of vehicles. These are set out in the Motor Vehicles (Speed Limit) Regulations (Northern Ireland) 1989 and the Highway Code. Drivers of vehicles are expected to be aware of this and follow these special limitations without having to be reminded

by specific speed limit signs for particular vehicles. Roads Service does not therefore erect different speed limit signs relating to different classes of vehicle.

59. The main types of speed limit, traffic-calming, camera and related signing can be found at the following diagram numbers within the Traffic Signs Regulations (Northern Ireland) 1997:
 - diagram 670 – ‘Maximum speed limit’ sign
 - diagram 671 – ‘National speed limits apply’
 - diagrams 674 and 675 – 20 mph ‘Speed limit zone’ signs
 - diagrams 878, 879 and 880 (Authorised) – ‘Camera warning’ signs
 - diagram 883 (Proposed) – ‘Traffic calmed area’ sign
 - diagram 1062 – ‘Road hump’ marking
 - diagram 1065 – Carriageway roundel road marking - Authorised
 - diagram 2403.1 Authorised – Town or village gateway sign (boundary sign) (may be combined on the same post or backing board with a speed limit sign)
 - diagrams 557.1 to 557.4 – ‘Road hump’ signing
60. The main directions for the use and placing of speed limit restrictions can be found in Section 1804 of the Roads Service Manual.
61. TSRGD 2002 (as amended) included a number of changes to speed limit signing regimes. Appendix A to this document summarises the key changes. DfT Circular 02/2003 gives fuller details of all the changes.
62. Further detailed advice on the form and siting of speed limit signs is given in Chapter 4 of the Traffic Signs Manual (DfT, 2004), including the correct signing of side road junctions. Traffic Advisory Leaflet 01/95 (DoT, 1995a) provides a guide to good practice on the placing of speed limit signs, including repeaters, and traffic managers should use this to inform their speed-limit signing requirements to ensure there are no enforcement difficulties.
63. Vehicle-activated signs (VAS), triggered by an approaching vehicle, have been developed to help address the problem of inappropriate speed. They must not be used as an alternative to standard static signing, but as an additional

measure to warn drivers of a potential hazard or to remind them of the speed limit in force. VAS have proved particularly effective in rural areas, including at the approaches to junctions and bends. Further guidance is contained within the Traffic Advisory Leaflet 01/03.

64. The traffic signs legislation does not prescribe the use of countdown markers on the approach to speed limit terminal signs, and local traffic managers must therefore apply to Roads Service Headquarters for special authorisation before they can be installed.

65. Research has shown that countdown markers have little or no effect on vehicle speeds and can add to sign clutter. Roads Service does not as a general rule give approval to countdown markers. However, it will consider their use if there is a particular problem with road users seeing terminal gateway speed limit signs in good time. When seeking approval, traffic managers must have appropriate evidence of insurmountable problems, including photographic evidence; evidence that other measures have been taken to make existing signs clearly visible to the motorist (including the removal of vegetation and/or moving the existing gateway signs); and evidence of support for the use of countdown markers by local members of PSNI.

DRAFT

SECTION 5: URBAN SPEED MANAGEMENT

This section provides specific guidance on the setting of local speed limits in urban areas.

Key points

Lower speeds benefit all urban road users.

Local traffic managers are encouraged to adopt the Institution of Highways & Transportation's urban safety management guidelines (see IHT, 1990, 2003), in which road hierarchies are adopted that reflect a road's function and the mix of traffic that it carries.

The national speed limit in urban areas is 30 mph.

Roads Service encourages and supports 20 mph limits and zones in situations where there is a particular risk to vulnerable road users.

Roads suitable for a 40 mph limit are generally higher quality suburban roads or those on the outskirts of urban areas where there is little development.

In exceptional circumstances, 50 mph limits can be implemented on special roads and dual carriageways, radial routes or bypasses where the road environment and characteristics allow this to be done safely.

66. Urban roads by their nature are complex in needing to provide for safe travel on foot, bicycle and by motorised traffic. Lower speeds benefit all urban road users, and setting appropriate speed limits is therefore an important factor in improving urban safety. Traffic managers are encouraged to adopt the urban safety management guidelines published by the Institution of Highways and Transportation (IHT, 1990, 2003), in which road hierarchies are adopted that reflect a road's function and the mix of traffic that it carries. Within this approach the principle should be to ensure that 'the appropriate traffic travels on the appropriate roads, and at an appropriate speed'.
67. The standard speed limit in urban areas is 30 mph, representing a balance between mobility and safety of road users, especially the more vulnerable groups. Local speed limits of 20 mph are, however, encouraged in situations where there is a particular risk to vulnerable road users. Traffic managers can

also implement 40 mph and, in exceptional circumstances, 50 mph limits on special roads and dual carriageways where the road environment and characteristics allow.

68. It is on urban roads that the majority of casualties occur, including nearly 88% of pedestrian and pedal cyclists casualties (PSNI Road Traffic Collision statistics: Annual Report 2005). The type of road user casualty involved differs substantially from one location to another. In town centres and shopping streets, casualties are often concentrated at specific locations. On residential streets, collisions are more scattered, but nonetheless usually include a high proportion of pedestrians and cyclists and also involve a higher proportion of children than on other roads. Efforts should therefore be made to promote use of more suitable routes for through traffic and to manage the speed of traffic requiring access to residential streets using traffic calming and associated techniques (see Traffic Advisory Leaflet 03/90; DoT, 1990).
69. In many urban centres, main traffic routes often have a mixture of shopping, commercial and/or residential functions. These mixed priority routes are complex and difficult to treat, but the most successful measures have included speed management to keep speed at appropriate levels and a reassignment of space to the different functions, taking into account the needs of vulnerable road users.
70. A summary table of urban speed limits can be found at Appendix C.

20 mph Speed Limits and Zones

71. DEM 64/04 (Policy on the use of Advisory 20mph zones) gives advice on how and where to implement 20 mph speed limits and 20 mph zones. They should not be implemented on roads with a strategic function or on main traffic routes.
72. Successful 20 mph zones and 20 mph speed limits should be generally self-enforcing. Traffic managers should be aware of the level of police enforcement required before installing either of these measures. 20 mph speed limits are unlikely to be complied with on roads where vehicle speeds are substantially higher than this and, unless such limits are accompanied by the introduction of traffic calming and other engineering measures, local police may find it difficult to routinely enforce the 20 mph limit. Traffic managers should therefore always consult local police when considering possible 20 mph limits or zones, and thereafter as part of the formal consultation process.

20 mph Zones

73. 20 mph zones are predominantly used in urban areas – both town centres and

74. The purpose of this type of area-wide traffic management is to create conditions in which drivers naturally drive at around 20 mph because of the general nature of the location, or as a result of traffic calming measures being put in place.
75. 20 mph zones are very effective at reducing collisions and the severity of injuries. This is confirmed in research that shows that the number of collisions involving injury to children may be reduced by up to two-thirds (Webster and Mackie, 1996).
76. A 20 mph zone is indicated by specially designed 20 mph zone entry and exit signs (Traffic signs Regulations (Northern Ireland) 1997 diagrams 674 and 675).
77. No additional speed limit or traffic calming signs are required within a 20 mph zone, as vehicle speeds should be low enough to render it unnecessary.

20 mph Speed Limits

78. 20 mph speed limits should be used for individual roads, or for a small number of roads.
79. Research into 20 mph speed limits carried out by TRL (Mackie, 1998) showed that, where speed limits alone were introduced, reductions of only about 2 mph in 'before' speeds were achieved. 20 mph speed limits are, therefore, only suitable in areas where vehicle speeds are already low (the Department would suggest where mean vehicle speeds are 24 mph or below), or where additional traffic calming measures are planned as part of the strategy.
80. A 20 mph speed limit is indicated by terminal speed limit signs, and 20 mph repeater signs are required at regular intervals along the road(s) covered by the limit.

Traffic Calming Measures

81. Traffic calming involves the installation of proven physical or psychological measures to encourage lower traffic speeds. There are many measures available to traffic managers to help them reduce vehicle speeds and ensure compliance with the speed limit in force.

82. A full list of the guidance that has been provided to traffic managers on the measures available can be found in Section 8, Bibliography. Appendix B to this document provides a brief synopsis of the most popular and effective measures, including:
- road humps
 - road narrowing measures
 - gateways
 - road markings
 - rumble devices
83. Appendix B also sets out the consultation requirements that must be followed before installation of traffic calming measures can take place.

40 and 50 mph Speed Limits

84. Whilst 30 mph is the standard speed limit for urban areas, a 40 mph limit may be used where appropriate and, in exceptional circumstances, a 50 mph limit may be considered.
85. Roads suitable for 40 mph are generally higher quality suburban roads or those on the outskirts of urban areas where there is little development. They are roads which generally provide a through traffic or strategic function and should have good width and layout, parking and waiting restrictions in operation, and buildings set back from the road. These roads should, wherever possible, cater for the needs of non-motorised road users through segregation of road space. Alternatively, traffic managers should consider whether there are convenient alternative routes available and ensure that any roads with a 40 mph limit have adequate footways and crossing places as necessary for pedestrians, cyclists and equestrians.
86. In exceptional circumstances a 50 mph limit may also be used on higher quality roads where there is little or no roadside development, and this can be done safely. The roads most suited to these higher urban limits are special roads or those such as primary distributors with segregated junctions and pedestrian facilities. They are usually dual carriageway ring or radial routes or bypasses which have become partially built up. Traffic managers should, however, always assess the potential impact upon the local community and non-motorised road users before considering such a limit.

SECTION 6: RURAL SPEED MANAGEMENT

This section provides specific guidance on the setting of local speed limits in rural areas

Key points

The national speed limit on the rural road network is 60 mph on single carriageway roads and 70 mph on dual carriageways.

The majority of drivers do not reach or exceed the 60 mph limit on many single carriageway roads because it is often difficult to do so because of the characteristics and environment of the road network, especially in the more remote rural areas.

Nonetheless, in 2007, some 58% of serious road casualties and 79% of road deaths in Northern Ireland occurred on rural roads.

Speed can be a major factor in the severance of local communities.

The speed limit on single carriageway rural roads should take into account traffic and road user mix, the road's geometry and general characteristics, its surroundings, and the potential safety and environmental impacts.

Building upon the Institution of Highways and Transportation's rural safety management guidelines (IHT, 1999), local traffic managers are encouraged to adopt a two-tier hierarchical approach that differentiates between single carriageway roads with a strategic or local access function.

Higher speed limits should be restricted to 'upper tier' or high quality strategic single carriageway roads where there are few bends, junctions or accesses.

Lower speed limits would be appropriate on 'lower tier' single carriageway roads passing through a local community, or having a local access or recreational function. They would also be appropriate where there are significant environmental considerations or where there is a high density of bends, junctions or accesses, or the road is hilly.

A speed assessment framework has been developed to help achieve an appropriate and consistent balance between safety and mobility objectives on single carriageway rural roads. Local traffic managers are initially encouraged to consider its use on those roads with high collision rates or simply as a way of helping decisions in borderline cases where the choice of the appropriate speed limit is not clear-cut.

High quality rural dual carriageways with segregated junctions and facilities for vulnerable road users would generally be suitable for 70 mph limits. However, a lower limit would be appropriate if, for example, a collision history indicates that this cannot be achieved safely.

It is the Department's and Roads Service's policy that, where appropriate, a 30 mph speed limit should be the norm in villages.

It is recommended that the minimum length of a village speed limit should be at least 600 metres. However, Local traffic managers may lower this to 400 metres, and in a very few exceptional circumstances to 300 metres

87. The vast majority of the rural road network, including C and Unclassified roads, is subject to the national speed limit of 60 mph on single carriageway roads and 70 mph on dual carriageways. The majority of drivers do not, however, reach or exceed the speed limit on many single carriageway roads because it is often difficult to do so. This is especially evident on the C and Unclassified roads where the geometric characteristics include many narrow roads, bends, junctions and accesses.
88. Nonetheless, in 2005, 58% of serious road casualties and 73% of road deaths, occurred on rural roads. The reduction in road casualties on rural roads has been at a notably slower rate than on urban roads. It is also here that environmental and landscape factors, along with a wide variety of other road uses, need to be especially considered. Speed can also be a major factor in the severance of local communities from essential facilities and lead to a reduced quality of life. Consequently, there is a need to improve speed management in rural areas and in particular to further help drivers to understand underlying risks and tackle the problems caused by inappropriate speed. Local traffic managers should particularly intervene on roads where there is a case for encouraging use by, or safeguarding the needs of, vulnerable road users.
89. As elsewhere, speed limits should be considered as only one part of rural safety management, and what the road looks like to the road users, the road function, traffic mix, and road and rural characteristics should be taken into

account. Traffic managers are encouraged to adopt the rural safety management guidelines published by the Institution of Highways and Transportation (IHT, 1999). Building upon these, traffic managers are encouraged to adopt a two-tier (upper and lower) hierarchical approach which differentiates between roads with a strategic or local access function. Using this approach, higher limits should be restricted to 'upper tier' or high quality strategic roads where there are few bends, junctions or accesses. Similarly, lower limits would be appropriate on 'lower tier' roads with a predominantly local, access or recreational function. They would also be appropriate where there are significant environmental considerations such as in any future National Parks or Areas of Outstanding Natural Beauty, or where there is a high density of bends, junctions or accesses, or the road is hilly.

90. This guidance seeks to assist traffic managers by helping to define the appropriate traffic speed on different types of rural road, taking into account traffic and road user mix, geometry, general characteristics of the road and its surroundings, and the potential safety and environmental impacts.
91. Where collision rates are high, traffic managers should seek cost-effective improvements to reduce these rates by targeting the particular types of collisions taking place. To help in this process the Accident Analysis on Rural Roads: A Technical Guide (TRL, 2004) has been developed, which provides information on typical collision rates and typical proportions of different crash types on different types of rural road. This can be used to assess where there are above-average collision rates and provides help to traffic managers in identifying the types of site or route specific intervention measures that might be appropriate to manage speeds and reduce collisions along the route.
92. Traffic managers should also consider the use of vehicle-activated signs (VAS), which have proved particularly effective at the approaches to isolated hazards, junctions and bends in rural areas.
93. In rural areas every effort should be made to achieve an appropriate balance between speeds, speed limits, road function and design, the differing needs of road users, and other characteristics. This balance may be delivered by introducing one or more speed management measures in conjunction with the new speed limits and/or as part of an overall route safety strategy. The aim should be to align the local speed limit so that the original mean speed driven on the road is at or below the new posted speed limit for that road.
94. Widespread implementation of speed management over the whole minor rural road network could require a costly and environmentally sensitive increase in the level of signing. Traffic managers should seek to ensure that a sensible balance is achieved.

Single Carriageway Rural Roads and the Speed Assessment Framework

95. In the vast majority of instances, the road function, characteristics and environment and actual speeds being driven should enable local traffic managers to determine the appropriate limit on single carriageway rural roads.
96. However, in those cases where traffic engineers need further guidance to aid their decision-making, an assessment framework has been developed. This was produced by TRL to help achieve an appropriate and consistent balance between safety and mobility objectives on single carriageway rural roads (Taylor et al., 2002). Providing a method of assessment for speed limits, the assessment framework is designed to help decision-makers weigh up, in a more transparent way, the advantages and disadvantages of each speed limit option and reach a well-founded conclusion.
97. The assessment framework methodology is based on the presumption that single carriageway rural roads should operate at speeds near to those that give the minimum total costs taking safety, mobility and environmental impact into account. The framework is designed to take into account safety benefits and mobility costs and also allows environmental and accessibility factors to be described in ways that make transparent how the balance between the costs and benefits changes with different choices of speed limit. The assessment framework, which includes an electronic spreadsheet, automatically calculates the safety and mobility costs associated with different speed limit options. Although the framework provides a consistent approach, it is not rigid or prescriptive and allows local conditions and constraints to be taken into account.
98. As recommended in paragraph 37, mean speeds should be used where the assessment framework is being applied. Local issues in relation to particular routes can be further reflected through final decisions on the acceptable mean speed for each limit, on the importance given to local environmental or social factors, and on the choice of additional engineering or educational measures.
99. The assessment framework differentiates between two tiers of roads based upon their traffic function:
 - upper tier – those with primarily a through traffic function, where mobility is important, typically all the A class and important B class roads;
 - lower tier – those with a local or access function, where quality of life benefits are important, typically the C and Unclassified roads and remaining elements of the B class network
100. Following investigations of the relationship between speed and collisions on

rural single carriageway roads, TRL Report 511 (Taylor et al., 2002) successfully classified rural road sections into four groups reflecting their operational characteristics. Drawing upon the collision rate information available for these groups and the minimum total cost at a particular speed, TRL Published Project Report 025 (TRL, 2004) sets the following collision thresholds for upper and lower tier roads, which reflect expected levels associated with a road carrying a given level of traffic and an appropriate balance between safety and mobility:

- upper tier roads – 35 injury collisions per 100 million vehicle kilometres
- lower tier roads – 60 injury collisions per 100 million vehicle kilometres

The speed assessment framework operates on the principles that the speed limit choice should be guided by whether the collision rate on a section of road is above or below the respective 35 or 60 injury collision thresholds.

101. The framework is designed to assist local decision making and promote greater consistency. The principles of the framework and a user guide can be found at Appendix E. The Department for Transport has also produced Traffic Advisory Leaflet 02/06, Speed Assessment Framework: Balancing safety and mobility objectives on rural single carriageway roads (DfT, 2006), giving fuller details of how the assessment framework works and advice on how to apply it. The framework spreadsheet itself can be downloaded from the TRL web site, www.trl.co.uk. For many cases, the principles will indicate the most likely appropriate limit without use of the detailed spreadsheet.
102. The framework has been trialled during development using data from a cross-section of single carriageway rural roads in Great Britain supplied by a number of local traffic authorities. Initial trials using the assessment framework proved the practical value of the methodology, resulting in speed limits for upper tier roads which were generally accepted as reasonable by the local safety officers in relation to speed, crash risk and road character. The trials also demonstrated that the detailed spreadsheet was useful for assessing roads where the decision to change a speed limit was marginal or where more detailed data were needed on cost trade-offs – but its use is not essential for simpler cases. A number of other local traffic authorities provided similar feedback on the methodology as part of the consultation on the draft of the DfT's equivalent guidance.
103. The assessment framework is still relatively new. In the first instance, traffic managers should consider its application to those roads with high collision rates or simply as a way of helping decisions in borderline cases where the choice of the appropriate speed limit is not clear-cut.
104. The Department for Transport in England intends to monitor the use of the assessment framework on the ground and, subject to the above results being

confirmed through wider use and the framework successfully delivering more appropriate speed limits, it could ultimately be used more widely across the single carriageway rural road network to help determine the most appropriate limits according to road function and type, taking into account crash rates. Given the different demographical and geographical layout of roads in Northern Ireland, Roads Service will also assess whether it could be directly transferable to the region.

105. In this instance, and subject to meeting local needs and considerations, recommended speed limits for the two tiers toward which, over a period of time, traffic managers are encouraged to move are:

Upper Tier Roads

- 60 mph: high quality strategic roads with few bends, junctions or accesses. When the assessment framework is being used, the collision rate should be below a threshold of 35 injury collisions per 100 million vehicle kilometres.
- 50 mph: lower quality strategic roads which may have a relatively high number of bends, junctions or accesses. When the assessment framework is being used, the collision rate should be above a threshold of 35 injury collisions per 100 million vehicle kilometres and/or the mean speed already below 50 mph.
- 40 mph: where there is high number of bends, junctions or accesses, substantial development, where there is a strong environmental or landscape reason, or where the road is used by considerable numbers of vulnerable road users.
- 30 mph: should be the norm in villages where appropriate.

Lower Tier Roads

- 60 mph: only the best quality roads with a mixed function (i.e. partial traffic flow and local access) with few bends, junctions or accesses (in the longer term these roads should be assessed using the upper tier criteria).
- 50 mph: lower quality roads with a mixed function where there are a relatively high number of bends, junctions or accesses. When the assessment framework is being used, the collision rate should be below a threshold of 60 injury collisions per 100 million vehicle kilometres.
- 40 mph: roads with a predominantly local, access or recreational function, or where the road forms part of a recommended route for vulnerable road users. When the assessment framework is being used, the collision rate should be above 60 injury collisions per 100 million vehicle kilometres.

- 30 mph: should be the norm in villages where appropriate.

A summary table can be found at Appendix D.

106. It is important to note that the above does not imply that speed limits should automatically be reduced. Indeed, in some cases the assessment may suggest that the existing speed limit may already be inappropriately set or too low, and an increased limit should be considered.

Dual Carriageway Rural Roads

107. Rural dual carriageways are not covered by the speed assessment framework. High class dual carriageway roads with segregated junctions, restricted access and facilities for vulnerable road users would generally be suitable for 70 mph limits. However, a lower limit will be appropriate if, for example, a collision history indicates that this cannot be achieved safely.

Villages

108. Fear of traffic can affect people's quality of life in villages and it is self-evident that villages should have comparable speed limits to similar roads in urban areas. It is therefore government policy that, where appropriate, a 30 mph speed limit should be the norm in villages.

109. Traffic Advisory Leaflet 0 1/04 (DfT, 2004) sets out current policy on achieving lower speed limits in villages, including a broad definition of what constitutes a village. For the purpose of applying a village speed limit of 30 mph, a definition of a village can be based, but not necessarily exclusively, on the following simple criteria relating to frontage development and distance:

- 20 or more houses (on one or both sides of the road); and
- a minimum length of 600 metres.

110. If there are just fewer than 20 houses, traffic engineers should make extra allowance for any other key buildings, such as a church, shop or school.

111. The above criteria should give an adequate visual message to drivers to reduce their speed. However, many drivers are unlikely to reduce their speed to the new 30 mph limit if it is over a very short stretch of road, particularly if the end of the limit can be seen at the entry point. It is therefore recommended that the minimum length is at least 600 metres to avoid too many changes in speed limits along a route. Traffic managers may, however, lower this to 400 metres

when the level of development density over this shorter length exceeds the 20 or more houses criterion and, in exceptional circumstances, to 300 metres. Shorter lengths are, however, not recommended.

112. In some circumstances it might be appropriate to consider an intermediate speed limit of 40 mph prior to the 30 mph terminal speed limit signs at the entrance to a village, in particular where there are outlying houses beyond the village boundary or roads with high approach speeds. For the latter, traffic managers might also need to consider other speed management measures to support the message of the speed limit and help encourage compliance so that no enforcement difficulties are created for local members of PSNI. Where appropriate, such measures might include a vehicle-activated sign, centre hatching or other measures that would have the effect of narrowing or changing the nature and appearance of the road.
113. Where the speed limit commences at the village boundary, the village nameplate sign and speed limit roundel may be mounted together using the format prescribed in diagram 670.1 of TSR (NI) 1997. The combined sign should be located as near as practicable to the start of the development, so that drivers see housing at the same time as the signs, reinforcing the visual message for reduced speed.
114. If there are high approach speeds to a village, or the start of the village is not obvious, village gateway treatments can also be an effective way to slow drivers down. Further guidance on the use of gateway and entry treatments is included in Appendix B. Advice can also be found in Traffic Advisory Leaflets 13/93 Gateways (DoT, 1993a), 01/94 VISIP – A Summary (DoT, 1994a) and 01/04 Village Speed Limits (DfT, 2004).
115. In situations where the above criteria for a village are not met and there is a lesser degree of development, or where engineering measures are not practicable or cost-effective to achieve a 30 mph limit, but a reduction from the national 60 mph speed limit is considered appropriate, traffic managers should consider alternative lower limits of 40 or 50 mph.
116. It may also be appropriate in some larger villages to consider 20 mph limits or zones, if lighting and other considerations allow. Such limits should not, however, be considered on roads with a strategic function or on main traffic routes.

SECTION 7:

VARIABLE SPEED LIMITS AT SCHOOLS

117. The following principles describe the circumstances and arrangements for variable speed limits to be used outside schools. They should not be used for any other purpose unless this policy is specifically amended.
118. Roads outside schools are perceived as dangerous for children, especially on rural roads where the national speed limit applies. At the time when children are crossing or alighting from vehicles, there can be high volumes of traffic, manoeuvring or parked vehicles obscuring visibility and vehicle speeds that can often appear too high. Research has clearly shown that reducing vehicle speeds to 30 mph or less significantly reduces the level of injury if a vehicle strikes a child.
119. In many countries, zones with special speed limits are applied at schools and indicated by permanently displayed signs. Studies of traffic behaviour suggest the uniform application of permanently displayed speed limits outside schools is unlikely to result in a change to speeds outside most schools.
120. There are situations where standard traffic control devices and the level of activity outside a school do not result in lower traffic speeds, particularly where the school is on an arterial or other road where there is a high volume of traffic or high speeds. Installation of a variable speed limit in the vicinity of the school may, in these circumstances, be desirable to achieve a lower speed environment during signs of high activity.
121. The major drawback of any permanently displayed sign is the manner in which drivers, many of whom would pass the same sign regularly without requiring any action in response to it, tend to ignore or fail to see it. Variable signs, which are displayed only when relevant, offer a way in which this drawback can be minimised and may actually enhance driver acceptance of any restriction imposed.

Objectives of Variable Speed Limits in School Zones

122. Variable speed limits in school safety zones are seen as having the following objectives:

- provide a safer road environment outside schools
- reinforce driver expectations of the likely presence of children
- encourage safe and active travel to school

123. This is consistent with the main objective of the Roads Service Travelwise Safer Routes to School initiative, which seeks to encourage children to walk or cycle to school. A major impediment is parents' concerns about child safety.

124. A variable speed limit in a school zone is unlikely to be effective by itself and must complement other engineering or signing measures aimed at enhancing safety for children undertaken at the site. Roads Service has developed a 'tool kit' for a range of measures that could be installed as part of its Safer Routes to School initiative.

125. Evaluations have found locations most likely to benefit from a variable speed limit in a school zone are those meeting the above criteria and:

- are on arterial routes or multi-lane roads or high speed environments, and
- have on-road, school-related activity at an obscured school frontage (i.e. where the presence of the school is not immediately obvious to approaching traffic)

Best Practice Guidelines

126. Factors required for the successful operation of a variable speed limit in a school zone are:

- having times of operation coinciding with on-road, school-related activity
- approved advisory signs and regulatory displays that alert motorists they are travelling through a school zone
- appropriate levels of enforcement by the local police
- long-term commitment by the school principal and Education Board for the correct operation of a variable speed limit at their school

Times of Operation

127. Surveys at trial installations in other countries have shown variable speed limits in school zones are effective in reducing speeds, but have the support of drivers only if there are children present when they are operating. Therefore, the times they are activated must be tightly controlled to match, as closely as possible, the times children are crossing the road or are gathered on the roadside.
128. These times may vary from school to school and from time to time. The variable signs should be activated by a timer switch on each occasion they are to be used which has been pre-programmed with the dates and times of the school being operational. The timers must operate for a maximum period of:
- 35 minutes before the start of school until five minutes after the start of school
 - 20 minutes at the end of school commencing no earlier than five minutes before the end of school
 - 10 minutes at any other time of day, when at least 20 children cross the road or enter or leave vehicles at the roadside
129. Unless the signs are manually turned off earlier, they must turn off automatically when the maximum period has elapsed. Care must be taken to ensure that the speed limit signs are not activated on Exceptional Closure Days or any other time during normal term times when school children are not present.

Length of Variable Speed Limits in School Zones

130. Variable speed limits in school zones should be installed to avoid, as far as possible, side roads with no school frontage. They must be as short as practicable between 400 metres and 600 metres long. There may be shorter lengths on no exit roads or roads with Give Way or Stop control at the intersection with the school zone, provided the variable speed limit on these roads is adjoining the variable speed limit on the main road outside the school.

The Legal Position

131. The power to implement variable speed limits is contained in Article 38(1)(c) and (2) of the Road Traffic Regulation (NI) Order 1997. This power enables the Department by order to prohibit- "the driving of motor vehicles on that road at a speed exceeding the speed for the time being indicated by traffic signs in accordance with the order. An order may make provision restricting the speeds that may be indicated by traffic signs or the periods during which the indications may be given; and provide for the indications to be given only in such

circumstances as may be determined by or under the order".

132. The Schedule to the order could include various roads or lengths of roads or specific lanes. The order could also cite the days or hours of operation. However, if Roads Service wished to implement variable speed limits on certain roads to deal with say, deteriorating weather conditions it would not be necessary for the order to cite specific days or hours of operation. The date of coming into operation of the order will suffice.

DRAFT

SECTION 8: REFERENCES/BIBLIOGRAPHY

Legislation

Road Traffic Act 1988

The Road Traffic Regulation (Northern Ireland) Order 1997

The Road Humps Regulations (Northern Ireland) 1999

The Traffic Calming Regulations (Northern Ireland) 1995

Traffic Signs Regulations (Northern Ireland) 1997

Circulars

Design Manual for Roads & Bridges (DMRB), Section 1804: Speed Limits:
HMSO

Department for Transport Circular 01/2006, Setting Local Speed Limits

Traffic Advisory Leaflets

Department for Transport (2002), Traffic Advisory Leaflet 08/02. *Home Zones – Public Participation*. London: DfT

Department for Transport (2003), Traffic Advisory Leaflet 01/03. *Vehicle Activated Signs*. London: DfT

Department for Transport (2004a), Traffic Advisory Leaflet 01/04, *Village Speed Limits*. London: DfT

Department for Transport (2004b), Traffic Advisory Leaflet 03/04. *Quiet Lanes*. London: DfT

Department for Transport (2005a), Traffic Advisory Leaflet 01/05. *Rumblewave Surfacing*. London: DfT

Department for Transport (2005b), Traffic Advisory Leaflet 02/05. *Traffic Calming Bibliography*. London: DfT

Department for Transport (2006), Traffic Advisory Leaflet 02/06. *Speed Assessment Framework: Balancing safety and mobility objectives on rural single carriageway roads*. London: DfT

Department of the Environment, Transport and the Regions (1997), Traffic Advisory Leaflet 12/97. *Chi cane Schemes*. London: DETR

Department of the Environment, Transport and the Regions (1998), Traffic Advisory

Leaflet 01/98. *Speed Cushion Schemes*. London: DETR

Department of the Environment, Transport and the Regions (1999a), Traffic Advisory Leaflet 09/99, *20 mph Speed Limits and Zones*. London: DETR.

Department of the Environment, Transport and the Regions (1999b), Traffic Advisory Leaflet 14/99. *Traffic Calming on Major Roads: A Traffic Calming Scheme at Costessey, Norfolk*. London: DETR.

Department of the Environment, Transport and the Regions (2000), Traffic Advisory Leaflet 01/00, *Traffic Calming in Villages on Major Roads*. London: DETR

Department of the Environment, Transport and the Regions (2001 a), Traffic Advisory Leaflet 05/01, *Traffic Calming Bibliography*. London: DETR

Department of the Environment, Transport and the Regions (2001 b), Traffic Advisory Leaflet 10/01, *Home Zones – Planning and Design*. London: DETR

Department of Transport (1990), Traffic Advisory Leaflet 03/90. *Urban Safety Management Guidelines from IHT*. London: DoT

Department of Transport (1993 a), Traffic Advisory Leaflet 03/93, *Traffic Calming Special Authorisation*. London: DoT

Department of Transport (1993b), Traffic Advisory Leaflet 11/93, *Rumble Devices*. London: DoT

Department of Transport (1993c), Traffic Advisory Leaflet 12/93, *Overrun Areas*. London: DoT

Department of Transport (1993d), Traffic Advisory Leaflet 13/93. *Gateways*. London: DoT

Department of Transport (1994a), Traffic Advisory Leaflet 01/94, *VISP – A Summary*. London: DoT

Department of Transport (1994b), Traffic Advisory Leaflet 02/94, *Entry Treatments*. London: DoT

Department of Transport (1995 a), Traffic Advisory Leaflet 01/95. *Speed Limit Signs: A Guide to Good Practice*. London: DoT

Department of Transport (1995b), Traffic Advisory Leaflet 07/95. *Traffic Islands for Speed Control*. London: DoT

Department of Transport (1996a), Traffic Advisory Leaflet 02/96. *75 mm High Road Humps*. London: DoT

Department of Transport (1996b), Traffic Advisory Leaflet 07/96. *Highways (Road Humps) Regulations 1996*. London: DoT

Department of Transport (1997), Traffic Advisory Leaflet 02/97, *Traffic Calming on Major Roads: A49, Craven Arms, Shropshire*. London: DoT

Policy, research and other documents

Department for Transport (2004), Traffic Signs Manual Chapter 4, *Warning Signs*. London: TSO

Department for Transport (2005), *Road Casualties Great Britain 2004: Annual Report*. London: TSO

Department for Transport (2006), *Home Zones: Challenging the Future of Our Streets*. London: DfT

Department for Transport, Local Government and the Regions (2001), *A Road Safety Good Practice Guide*. London: DTLR

Department of the Environment, Transport and the Regions (2000a), *New Directions in Speed Management: A Review of Policy*. London: DETR

Department of the Environment, Transport and the Regions (2000b), *Tomorrow's Roads – Safer for Everyone. The Government's Road Safety Strategy and Casualty Reduction Targets for 2010*. London: DETR

Roads Service documents

Director of Engineering Memorandum 64/04 Traffic Policy on the use of Advisory 20mph zones.

Roads Service Policy & Procedure Guide (RSPPG) S012 – Road Humps & Traffic Calming: May 2000

RSPPG S014 – Road Traffic Regulation (NI) Order 1997 : May 2000 Finch, D. J., Kompfer, P., Lockwood, C. R. and Maycock, G. (1993), *Speed, Speed Limits and Accidents*, Crowthorne: TRL

Highways Agency (2002), TR 2136 Issue C, *Functional Specification for the Optical Performance of Discontinuous Variable Message Signs*. Bedford: HA

Highways Agency (2004), Document TA 8 7/04, *Design Manual for Roads and Bridges Trunk Road Traffic Calming*. Bedford: HA

Institute of Highway Incorporated Engineers (2002), *Home Zone Design Guidelines*. London: IHIE

Institution of Highways and Transportation (1990, 2003) *Urban Safety Management Guidelines*. London: IHT

Institution of Highways and Transportation (1997), *Transport in the Urban Environment*. London: IHT

Institution of Highways and Transportation (1999) *Rural Safety Management Guidelines*. London: IHT

Lynam, D., Hill and J., Barker, J. (2004) Published Project Report 025 – *Developing a Speed Management Assessment Framework for Rural Single Carriageway Roads*. Crowthorne: TRL

Mackie, A. (1998) TRL Report 363 – *Urban Speed Management Methods*, Crowthorne: TRL

Taylor, M. C., Baruya, A., Kennedy, J. V. (2002). TRL Report 511 – *The Relationship Between Speed and Accidents on Rural Single Carriageway Roads*. Crowthorne: TRL

Taylor, M. C., Lynam, D. A. and Baruya, A. (2000), TRL Report 421 – *The Effects of Drivers' Speed on the Frequency of Road Accidents*. Crowthorne: TRL

Transport Research Laboratory (2004), Published Project Report 026 – *Accident Analysis on Rural Roads: A Technical Guide*. Crowthorne: TRL

Webster, D. C. and Mackie, A. (1996) TRL Project Report 215 – *Review of Traffic Calming Schemes in 20 mph Zones*. Crowthorne: TRL

Enquiries

Enquiries about this Circular may be addressed to:

Transportation & Engineering Policy Unit
Room 3.29, Clarence Court,
10-18 Adelaide Street
Belfast
BT2 8GB

DRAFT

SUMMARY OF PROPOSED MAIN CHANGES TO SPEED LIMIT SIGNING REGIMES IN THE TRAFFIC SIGNS REGULATIONS

Speed limits at road works

Direction 10(3) requires the placing of speed limit signs to diagram 670 or 671 at the end of road works (in addition to the 'End of road works restrictions' signs to diagram 7006 or 7001 combined with an 'End' plate to diagram 645) if the stretch of road covered by the temporary restrictions includes a point at which the permanent speed limit has been changed. This avoids any confusion where the speed limit has been lowered at road works but the original speed limit is being reinstated. However, there is no requirement to sign the limit at the end of the works if the limit is the same as at the start of the works.

Informatory 30 mph and camera warning sign (diagram 880)

The sign to diagram 880 is a sign to inform drivers of the presence of enforcement cameras on a road where a 30 mph speed limit is in force and a system of street lighting is in operation. The sign cannot be used as a repeater sign.

Other camera signs (diagrams 878 and 879)

Signs to diagram 878 can be used to indicate traffic signal cameras, speed cameras, traffic signal and speed cameras, traffic enforcement cameras, police cameras, police enforcement cameras and bus lane cameras. Signs to diagram 879 are camera symbol repeater signs and can be placed on routes and in areas where enforcement cameras are from time to time in use.

Carriageway speed limit roundel markings

Speed limit carriageway markings can be used without special authorisation from the Road Service Headquarters, provided they are used in conjunction with upright speed limit signing. They may not be used as 30 mph repeater signs on roads with a system of street lighting. In exceptional circumstances the Department will consider special authorisation for carriageway roundels without upright speed limit signing in Areas of Outstanding Natural Beauty, but traffic managers are expected to consider how the roundels will be maintained, as the roundels can become worn and obscured by adverse weather conditions, which could affect enforcement.

TRAFFIC CALMING MEASURES SUITABLE FOR URBAN ROADS

The Road Humps Regulations (Northern Ireland) 1999 gives guidance on the construction and maintenance of road humps and The Traffic Calming Regulations (Northern Ireland) 1995 deals with the construction and maintenance of all other traffic calming engineering measures

Road humps

Road humps are the most effective traffic calming measure available for reducing speed. They are also the most severe, as they force the driver to slow down. There are many different types of road hump, including round top, flat top, raised junctions (speed tables) and speed cushions.

Speed cushions have been introduced in order to overcome concerns about discomfort and delay expressed by bus companies and the emergency services resulting from the use of flat and round top road humps. Their design allows these larger, wider vehicles to straddle the cushion, thereby reducing delay and discomfort.

Concerns have also been expressed about the potential for low vehicles to ground on road humps and cushions. Following research into this, a maximum height of 75 mm is recommended; this may need to be lower for very short or narrow cushions (see Traffic Advisory Leaflet 02/96; DoT 1996a).

Traffic Advisory Leaflet 7/96 Highways (Road Humps) Regulations 1996 (DoT, 1996b) gives guidance on the use of road humps, and Traffic Advisory Leaflet 01/98 (DETR, 1998) specifically deals with speed cushions.

Road narrowing measures

Narrowing the carriageway is also considered an effective way of reducing vehicle speeds and is less intrusive for the driver, but nevertheless requires drivers to negotiate an obstacle, thus encouraging them to slow down.

Chicanes, build-outs, overrun areas and traffic islands all have the effect of reducing the width of the carriageway. Chicanes achieve the biggest reduction in vehicle speeds, with traffic islands achieving the least reduction.

APPENDIX C

Guidance on the use of chicanes can be found in Traffic Advisory Leaflet 12/97 (DETR, 1997), on the use of overrun areas in Traffic Advisory Leaflet 12/93 (DoT, 1993c) and guidance on traffic islands can be found in Traffic Advisory Leaflet 07/95 (DfT, 1995b).

Gateways (rural) and entry treatments (urban)

Gateways are typically used in rural areas on the approach to villages and other areas where vulnerable road users can be expected. One definition of a gateway is 'combinations of natural or man-made features at the entry to, or exit from, areas where the rules or drivers' expectations change, such as the introduction of speed limits' (Institution of Highways and Transportation, 1997).

The Traffic Calming Regulations (Northern Ireland) 1995 provide for a gateway to be used 'to indicate the presence in a length of highway of traffic calming works'. These works may be prescribed by the traffic calming or road hump regulations or specially authorised.

Gateway features may be constructed on the verge, footway or cycle track. One of the main features will usually be vertical elements at the sides of the road as a strong visual cue for drivers. It is also possible for a gateway to span the carriageway. In common with all traffic calming features, a gateway may include paving, grass or other cover; pillars, bollards, planters, walls, rails or fences; trees, shrubs and other plants.

Traffic Advisory Leaflet 13/93 (DoT, 1993d) provides information and guidance on the use of gateways.

Entry treatments are normally used at side roads so that drivers leaving a major road are in no doubt that they are entering a road of a different character. Entry treatments at the beginning of a 20 mph zone are a good example of this. They also often raise the surface of the road to meet the level of the footway, thus not only creating a more pedestrian-friendly environment but also a speed-reducing feature. Traffic Advisory Leaflet 02/94 (DoT, 1994b) gives guidance on their use, also Traffic Advisory Leaflet 09/99 20 mph Speed Limits and Zones (DETR, 1999 a).

Road markings

The use of road markings can also have some effect in persuading drivers that a slower speed is appropriate. Measures include centre hatching, changing the colour of the road surface, dragon's teeth that are sometimes used as part of a gateway feature, and carriageway roundels that are used

APPENDIX C

in conjunction with upright speed limit signs as an additional measure to emphasise the speed limit in force.

Rumble devices

Rumble devices are also sometimes used. These may be in the form of rumble strips or areas that have a vibratory and audible effect which alerts the driver that extra care is needed. It should be noted that, because of the vibration and noise, these should not be placed close to residential areas. Traffic Advisory Leaflet 11/93 (DoT, 1993b) gives further advice on their use. A new type of rumble device known as rumblewave surfacing has recently been developed. This has a sinusoidal profile and provides similar noise and vibration within vehicles but less external noise, making it more suitable for use near residential areas. Traffic Advisory Leaflet 01/05 (DfT, 2005a) gives further advice on rumblewave surfacing.

The consultation process

Those most likely to be affected by traffic calming measures should be consulted before schemes are implemented. The process is outlined in Roads Service Policy & Procedure Guide (RSPPG) _ S012. Emergency Services, Translink, District Councils, etc should be consulted during the design process of schemes and statutory notices of intention to proceed with schemes shall be placed in the local press and at appropriate points on the road as required by Article 65 of The Roads (NI) Order 1993.

All frontagers directly affected by the proposals should be notified by letter and / or leaflet with an accompanying map outlining the proposed scheme. For larger, complex or more controversial schemes, it may be appropriate to meet with local residents' groups and / or hold public exhibitions in the affected area.

If a proposed scheme is not to proceed, it may be appropriate to inform those who would have been affected by it of the Department's intention to withdraw.

SPEED LIMITS IN URBAN AREAS

Table 1	Speed limits in urban areas
Speed limit (mph)	Characteristics
20	In town centres, residential areas and in the vicinity of schools where there is a high presence of vulnerable road users.
30	The standard limit in built-up areas with development on both sides of the road.
40	<p>Higher quality suburban roads or those on the outskirts of urban areas where there is little development. Should be few vulnerable road users.</p> <p>Should have good width and layout, parking and waiting restrictions in operation, and buildings set back from the road.</p> <p>Should wherever possible cater for the needs of non-motorised users through segregation of road space, and have adequate footways and crossing places.</p>
50	<p>Usually most suited to special roads, dual carriageway ring or radial routes or bypasses which have become partially built up.</p> <p>Should be little or no roadside development.</p>

Full details are set out in Section 5.

SPEED LIMITS FOR SINGLE CARRIAGEWAY ROADS IN RURAL AREAS*

Table 2	Speed limits for single carriageway roads in public areas	
Speed limit (mph)	Upper tier – roads with predominant traffic flow function	Lower tier – roads with important access and recreational function
60	<p>Recommended for most high quality strategic A and B roads with few bends, junctions or accesses.</p> <p>When the assessment framework is being used, the collision rate should be below a threshold of 35 injury collisions per 100 million vehicle kilometres with this speed limit.</p>	<p>Recommended only for the best quality C and Unclassified roads with a mixed (i.e. partial traffic flow) function with few bends, junctions or accesses.</p> <p>In the longer term, these roads should be assessed against upper tier criteria.</p>
50	<p>Should be considered for lower quality A and B roads which may have a relatively high number of bends, junctions or accesses.</p> <p>When the assessment framework is being used, the collision rates should be above a threshold of 35 injury collisions per 100 million vehicle kilometres at higher speeds.</p> <p>Can also be considered where mean speeds are below 50 mph, so lower limit does not interfere with traffic flow.</p>	<p>Should be considered for lower quality C and Unclassified roads with a mixed function where there are a relatively high number of bends, junctions or accesses.</p> <p>When the assessment framework is being used, the collision rate should be below a threshold of 60 injury collisions per 100 million vehicle kilometres.</p>
40	<p>Should be considered where there is a high number of bends, junctions or accesses, substantial development, where there is a strong environmental or landscape reason, or where there are considerable numbers of vulnerable road users.</p>	<p>Should be considered for roads with a predominantly local, access or recreational function, or if it forms part of a recommended route for vulnerable road users.</p> <p>When the assessment framework is being used, the collision rate should be above a threshold of 60 injury collisions per 100 million vehicle kilometres.</p>
30	Should be the norm in villages.	

**Recommended speed limits to which traffic managers are encouraged to move over a period of time, subject to their meeting local needs and considerations.*

Full details are set out in Section 6.

SPEED ASSESSMENT FRAMEWORK – NEW APPROACH TO SPEED LIMIT SETTING FOR SINGLE CARRIAGEWAY ROADS IN RURAL AREAS

1. Speed limits should be considered as only one part of rural safety management. The first priority where collision rates are high should be to seek cost-effective improvements to reduce these rates, targeting the crash types that are over-represented.
2. If high rates persist despite these measures, then lower speed limits may also be considered. But lower speed limits on their own without supporting physical measures, driver information and publicity or other measures will not necessarily change driver behaviour and therefore will result in substantial numbers of drivers continuing to travel at unacceptable speeds. This may lead to significant enforcement cost. So every effort should be made to achieve an appropriate balance between speeds, speed limits, road design and other measures. This balance may be delivered by introducing one or more speed management measures in conjunction with the new speed limits, and/or as part of an overall route safety strategy.
3. An assessment framework has been developed by TRL (Taylor et al., 2002) to help decision-makers weigh up, in a more transparent way, the advantages and disadvantages of each speed limit option and reach a well-founded conclusion for these roads.
4. The basis for the speed assessment framework procedure is:
 - a firm theoretical basis for choosing speed limits for road functions, taking account of safety, mobility and environmental factors
 - roads classified into two tiers based on road function
 - closer integration of speed limit choice, with more general rural road safety management measures
 - driver choice of desired speed to be reflected by mean speed
 - local flexibility of choice within a consistent overall procedure.
5. The assessment framework combines safety and mobility costs to show how the overall total cost and the balance between the component costs change if different choices of speed limit are made. For a particular road type, total cost is similar over a relatively wide speed range, with mobility benefits being exchanged for safety benefits as speeds decrease.

6. A simple two-tier functional hierarchy should be used, with roads having either primarily a through traffic function (upper tier) or a local access (lower tier) function. Both need to be provided safely. Mobility benefits will be more important for the upper tier than for the lower tier roads, whilst environmental benefits are likely to be of greater importance for the lower tier roads.
7. There may be many roads below A and B classification which serve a mixed through-traffic and access function. Where that traffic function is currently being achieved without a high collision rate, these roads should be judged against the criteria for upper tier roads. If, however, for all or parts of these roads there is a substantial potential risk to vulnerable road users, these sections should be assessed against the criteria for lower tier roads.
8. Decisions on speed limits should take account of other collision reduction measures that might be applied. To help in this process, a technical guide has been developed, Accident Analysis on Rural Roads (TRL, 2004) (downloadable from the TRL web site www.trl.co.uk), which provides information on typical collision rates, and typical proportions of different crash types, on different types of rural road. These can be used to judge whether other site- or route-specific measures might be appropriate that would reduce either speeds or collisions along the route.
9. Mean speed should be used for the assessment. For the majority of roads there is a consistent relationship between mean speed and 85th percentile speed. Where this is not the case, it will usually indicate that drivers have difficulty in deciding the appropriate speed for the road, suggesting that a better match between road design and speed limit is required.
10. The aim should be to align the speed limit to the prevailing conditions, and all vehicles moving at speeds as close to the posted speed limit as possible. An important step in the procedure is to gain agreement with local enforcement agencies that the mean speed of drivers on the road with any new speed limits is acceptable.
11. The aim of the framework approach is to achieve a consistent application of speed limit policy throughout the country. But local issues in relation to particular routes can be reflected in the functional tier to which the road is assigned, and also through final decisions on acceptable mean speeds for each limit, on the importance given to local environmental factors, and on the choice of additional measures that could change the appropriate speed limit regime recommended.

Selection procedure

12. Within routes, separate assessments should be made for each section of

road of 600 metres or more for which a separate speed limit might be considered appropriate. When this is completed, the final choice of appropriate speed limit for individual sections might need to be adjusted to provide consistency over the route as a whole.

13. A flow chart for the decisions to be made for selecting speed limits for rural single carriageway roads is given in Figure 1. It includes the following steps:

Step 1 - Consider whether the level of development requires special treatment.

Step 2 - Consider which functional tier is appropriate for the road.

Step 3 - Measure the current mean speed and collision rate (as all injury collisions per 100 million vehicle km).

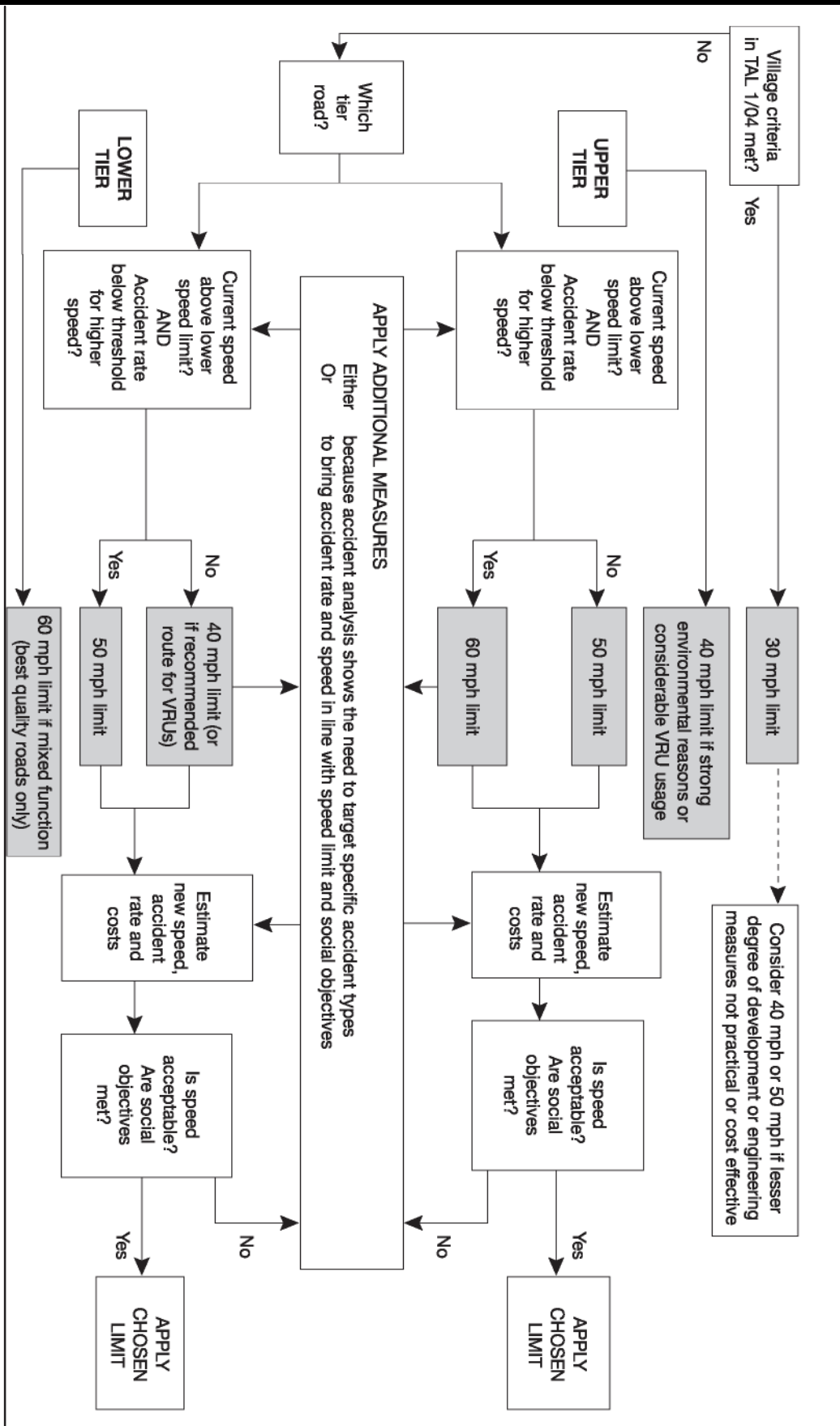
Step 4 – Check the collision rates against acceptable thresholds.

Step 5 – If the collision rate is high, check the proportion of different crash types against the investigatory thresholds recommended in *Accident Analysis on Rural Roads* (TRL, 2004) and consider whether site or route treatment is appropriate before deciding speed limit.

Step 6 – if a speed limit lower than the current one is indicated, estimate the mean speed and collision rate and the influence on social factors that would result from implementing the new limit.

Step 7 – Check that these values are acceptable; if not, consider whether further measures are necessary to bring speed and collision rates into balance.

Figure 1: Flow chart for choice of speed limit on single carriageway rural roads



14. For mean speeds to be acceptable, they should be no higher than the posted limit after it has been implemented. Research shows that, for a typical distribution of vehicle speeds on single carriageway rural roads, the 85th percentile speed is about 6 mph above the mean speed for roads with a 50 mph limit, and about 8 mph above mean speed on roads with a 60 mph limit. Setting acceptable mean speeds at or below the limit is therefore consistent with current enforcement thresholds.
15. The choice of speed limits within each tier should take account of the following:
 - whether the collision rate is below the appropriate threshold of injury collisions per 100 million vehicle kilometres
 - whether there is substantial development
 - whether the road forms part of a recognised route for vulnerable road users.
16. The bands of appropriate collision rates by speed and speed limit are illustrated in Figures 2 and 3. If walking, cycling, equestrians or environmental factors are particularly important on the road section, consideration should be given to using the lower limit, even if the collision rate is below the threshold shown.
17. The influence of development should be taken into account through the following factors:
 - If the road section qualifies for village status, the advice in Traffic Advisory Leaflet 0 1/04 (DfT, 2004) should be followed.
 - If the section does not meet the definition of Traffic Advisory Leaflet 0 1/04 (DfT, 2004) for a village, but the level of development is at least half the density implied (over a minimum of 600 metres), a speed limit of 40 mph should be considered.

Other factors that would strengthen the case for a 40 mph limit are: a high incidence of bends or junctions, or a high collision rate, and specific development in terms of schools, public houses and use by vulnerable road users.

Figure 2: Speed limit zones in terms of mean speed and collision rate for upper tier roads

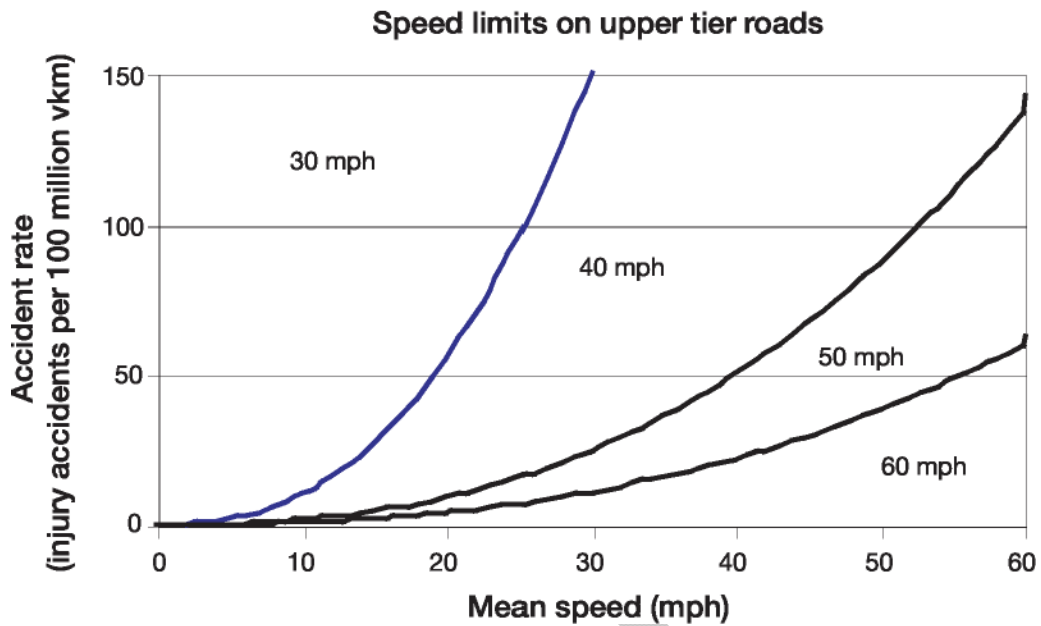
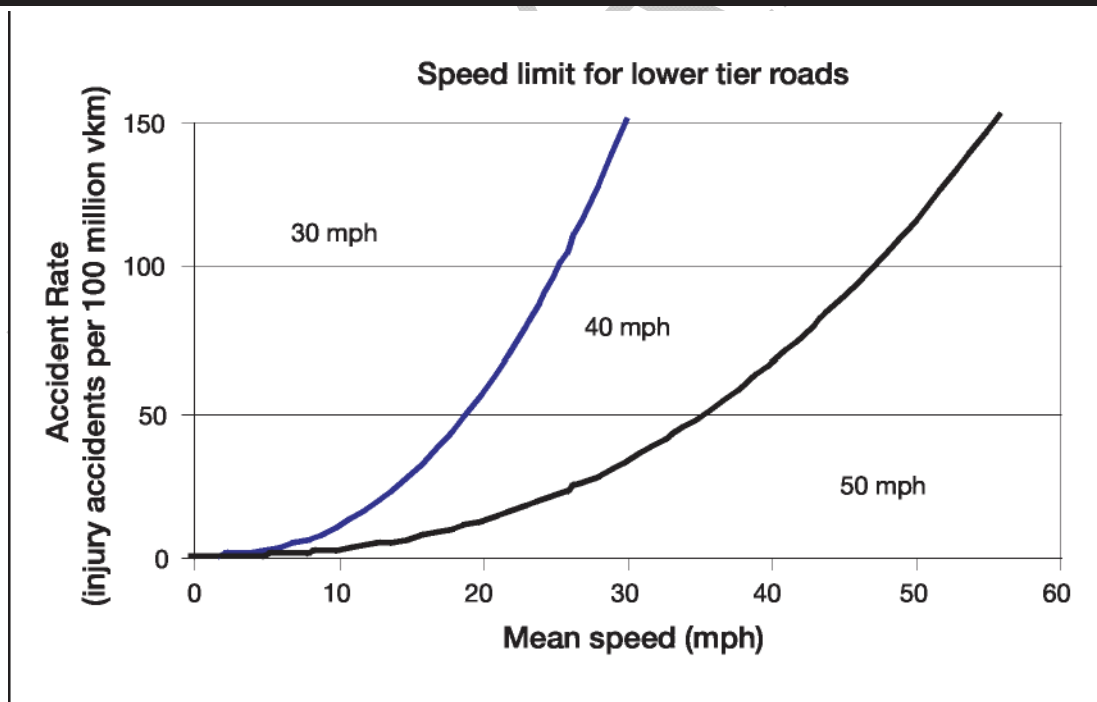


Figure 3: Speed limit zones in terms of mean speed and collision rate for lower tier roads



¹ EQUALITY OF OPPORTUNITY SCREENING

Section 75 of the Northern Ireland Act 1998 requires the Department for Regional Development, in carrying out its functions relating to Northern Ireland, to have due regard to the need to promote equality of opportunity:

- between persons of different religious belief, political opinion, race, age, marital status, or sexual orientation;
- between men and women generally;
- between persons with a disability and persons without; and
- between persons with dependants and persons without.

In addition, without prejudice to the above obligations, the Department must also, in carrying out its functions relating to Northern Ireland, have regard to the need to promote good relations between people of different religious belief, political opinion or race. The Department's Equality Scheme¹ includes the commitment to carry out an Equality Impact Assessment (EQIA) on existing policies identified for assessment and any new or revised policies.

The Department has carried out an Equality of Opportunity screening on the proposed policy and the analysis is presented at Appendix 1. As this policy will have a positive contribution to road safety it will have a positive impact on all Section 75 groups and without disadvantaging any group. As such a full Equality Impact Assessment is not required.

Rural Proofing

Introduction

Policy Proofing is a process by which policies are assessed at design, development and review stages for their impact on specific groups of people. Rural Proofing represents a process that ensures policies are examined carefully and objectively to determine whether they have different impacts in rural areas than elsewhere.

A commitment to ensure that the rural dimension is routinely considered as part of the making and implementation of policy was agreed within the first Programme for Government². The concept has been applied in developing the guidelines for

¹Equality Scheme, DRD, 2001 www.drdni.gov.uk/foi

² Programme for Government, Northern Ireland Executive, March 2001

Setting Local Speed Limits in Northern Ireland, in line with the Department for Agriculture and Rural Development's Guide to Rural Proofing.

The Context

The result of effective Rural Proofing will be that policy proposals will specifically identify any likely impact on rural areas/communities, and an assessment of how differential impact, if present, can be addressed (costs and benefits, financial or otherwise).

A consultation process is a key element in identifying specific issues that apply to rural areas and communities. Although Roads Service has followed the DARD guidance on rural proofing "Guide to Rural Proofing" and completed the "Rural Proofing Checklist", the public consultation exercise will identify any further issues which may need to be addressed.

Consultation is a key element in policy development. Inclusion of rural interest groups and organisations in the consultation process will identify specific issues that apply to rural areas and communities.

The Equality Impact Assessment completed during the preparation of the draft policy also presents evidence of consideration of relevant interested bodies.

These points demonstrate the extent to which the draft policy has applied the concept of Rural Proofing.

The Assessment

This speed management policy takes account of environmental, economic and social effects on all road users including rural dwellers.

In particular, the following potential impacts of the policy were considered to establish any disproportionate effects on rural dwellers:

- Service Provision
- Travel to urban centres
- Mobility
- Travel Needs
- Service Delivery costs
- Employment Opportunities
- Economic Impacts
- Infrastructure provision and innovation
- Countryside Amenity
- Social Exclusion

- Deprivation
- Land-based industry
- Rural landscape and tourism
- Local Craft and food production

The main impact of the policy was identified to relate to mobility, road safety and travel needs issues.

Conclusion

In general, the assessment of the impact of the policy on rural communities concluded that there should be improvements in terms of road safety. This would improve the quality of life for rural communities due to the positive impact on the reduction in casualties caused by excessive speed. The reduced speed should also create a safer environment for vulnerable road users such as walkers and cyclists in rural areas.

Although the policy may lead to slightly increased journey times in some rural areas, on the lower hierarchical roads, this should be balanced by the road safety benefits. The draft policy proposes that in rural areas all efforts should be made to strike an appropriate balance between speeds, speed limits, road function and the different needs of road users.

All other impacts were assessed as “not significant” as there was no evidence of any disproportionate effects on rural dwellers.

Regulatory Impact Assessment

The most recent Regulatory Impact Assessment (RIA) guide³, published by the Cabinet Office, includes a requirement to assess the impact of policy proposals on business, charities or voluntary organisations. However, the guidance makes it clear that a RIA does not have to be undertaken for ‘proposals which impose no costs or no savings, or negligible costs or savings on business, charities or the voluntary sector’.

In the case of the draft *Setting Local Speed Limits in Northern Ireland* policy, the guidelines are intended to impact on all road users and there are no measures contained within it that will have a specific detrimental impact on business, charities or the voluntary sector. The main thrust of the guidelines will be to establish more realistic speed limits on the public road network. The speed assessments will be based on several such as geometric layout, numbers of bends and junctions,

³ Better Policy Making: A Guide to Regulatory Impact Assessment, Cabinet Office, January 2003
www.cabinet-office.gov.uk/regulation

existing vehicle collision histories and mean speeds of traffic currently travelling on the road stretches.

As none of the proposals in the draft policy have any specific impact on any of the identified groups, it is considered that a RIA is not required.

However, it is recommended that traffic managers should carry out assessments before introducing or changing a local speed limit. This is to satisfy them that the benefits will exceed the disbenefits.

The assessments should include the following factors:-

- collision and casualty savings
- traffic flow and emissions
- journey times for motorised traffic
- journey – time reliability
- the environmental impact
- the level of public anxiety
- the level of severance by fast – moving traffic
- conditions and facilities for vulnerable road users
- the cost of associated engineering or physical measures and their maintenance
- the cost and visual impact of signing and possible environmental impact of engineering or other physical measures
- the cost of enforcement.

Lifetime Opportunities – Government’s Anti-Poverty Strategy (replaces New TSN)

This is the Government’s high level policy for combating the problems of unemployment, increasing employability and the causes of social exclusion. The strategy has two explicit commitments: to end child poverty by 2020; and work towards eliminating poverty and social exclusion in Northern Ireland by the same year. One of its key objectives is:-

- by 2020 reduce disability and long-term health problems and increase life expectancy by promoting road safety.

The *Setting Local Speed Limits in Northern Ireland* guidelines will contribute to this as its aim is to achieve a “safe” distribution of speeds which reflects the function of the road and the impacts on the local community. This will enable schemes to be provided to improve the quality for life for local communities by providing a better balance between road safety and accessibility, especially in lower hierarchy rural roads.

APPENDIX 1

Equality Impact Assessment Screening

Section 1 - the legal background

Under section 75 of the Northern Ireland Act 1998, the Department is required to have due regard to the need to promote equality of opportunity:

- between persons of different religious belief, political opinion, racial group, age, marital status or sexual orientation;
- between men and women generally;
- between persons with a disability and persons without; and
- between persons with dependants and persons without.

The main groups within each of the nine categories, highlighted above, are identified at the end of this assessment.

In addition, without prejudice to its obligations above, the Department is also required, in carrying out its functions relating to Northern Ireland, to have regard to the desirability of promoting good relations between persons of different religious beliefs, political opinion or racial group.

In relation to Departmental obligations under Section 49A of the Disability Discrimination Act 1995 (DDA 1995) as amended by the Disability Discrimination (Northern Ireland) Order 2006, the Department is required to give due regard to the need to promote positive attitudes towards disabled people and/or encourage participation by disabled people in public life.

Section 2 – Policy to be Screened

2.1 Please insert below a brief description of the policy/legislation, including the title and all the main aims and objectives

Title	<i>Setting Local Speed Limits in Northern Ireland</i>
Aims	<p>Roads Service, on behalf of the Department for Regional Development, sets “local speed limits” in situations where local needs and considerations deem it necessary for drivers to adopt a speed which is different from the national speed limit. Local speed limits could be reduced or increased, depending upon the conditions and evidence. In general, injury collisions are more prevalent on roads in built-up urban areas with a speed limit of 40 mph or less. Fatal collisions, however, were most likely to occur on the faster roads in rural areas, with a speed limit of above 40 mph. Local speed limits should not be set in isolation, but as part of a package with other measures to manage speeds.</p> <p>This guidance is to be used for the setting of all local speed limits on single and dual carriageway roads in both urban and rural areas.</p> <p>The guidance should also be used as the basis for future assessments of local speed limits, for developing route management strategies and for developing speed management strategies as part of any transport planning process.</p> <p>The aim is to achieve a “safe” distribution of speeds which reflects the function of the road and the impacts on the local community.</p> <p>Subject to the developments of the review of public administration (RPA) the objective is that Roads Service will review speed limits on all upper tier roads in NI within 5 years of the publication date of this document prior to the subsequent implementation of any necessary changes to speed limits in accordance with this guidance.</p>

2.2 On whom will the policies/legislation impact? Please specify

The policy will impact upon all road users.

2.3 Who is responsible for (a) devising and (b) delivering the policy, eg is it DRD, a Whitehall Department or EU? What is the relationship and have they considered this issue and any equality issues?

- (a) DRD Roads Service
- (b) DRD Roads Service

2.4 What linkages are there to other NI Departments/NDPBs in relation to this policy/legislation?

There is a direct linkage with the Police Service of Northern Ireland (PSNI) as they will be responsible for the enforcement of the legislation concerning speed limits.

There is a linkage with the Department of Education in determining suitable locations for introducing variable speed limits at schools.

This policy will provide a contribution to the casualty reduction targets set out in the DoE Northern Ireland Road Safety Strategy (2002-2012)

2.5 What data are available to facilitate the screening of this policy/legislation?

PSNI Annual Report 2007.

During 2007 there were 5,990 injury road traffic collisions reported to the police resulting in 113 fatalities, 1,097 serious injuries and 8,226 slight injuries. This is the lowest annual total recorded fatalities in Northern Ireland since 1947. Drivers of motor vehicles remained the largest casualty class killed or seriously injured. Excessive speed having regard to conditions also remained the largest causation factor for killed or seriously injured casualties in 2007.

In 2007 fatal and serious collisions, excessive speed gave rise to 253 (21%) of casualties killed or seriously injured, (32 killed and 221 seriously injured).

Nearly half (49%) of the male deaths and serious injuries that were due to excess speed were those aged 16 - 24, compared with 39% of equivalent female casualties.

Just under half (49%) of casualties killed or seriously injured due to excess speed were drivers of motor vehicles. Just over two-fifths (43%) of this group were aged 16 – 24 and 73% of this group were male.

Around two-fifths (41%) of casualties killed or seriously injured due to excess speed, were passengers. Fifty five per cent of male passengers killed or seriously injured due to excess speed were aged 16 - 24 compared with 52% of female KSI passengers.

Motorcyclists accounted for 6% of casualties who were killed or seriously injured due to excess speed. All were male, with two thirds (71%) aged 16 - 34.

There were 5 child fatalities, 101 serious injuries and 894 slight injuries among child casualties in 2007. Of all casualties who were killed or seriously injured, 9% were under 16 years of age. The most common cause of fatal or serious injuries among children was lack of care as pedestrians when crossing carriageways (28%). This was followed by excessive speed

(17%).

Just under half (46%) of child casualties killed or seriously injured were pedestrians, 42% were passengers of motor cars or people carrying vehicles and 8% were riders or passengers of pedal cyclists.

Collisions on roads in rural areas accounted for just over one third (36%) of all collisions, but 80% of all fatal collisions

2.6 Is additional data required to facilitate screening? If so, give details of how and when it will be obtained.

No

DRAFT

Section 3 – Screening Analysis

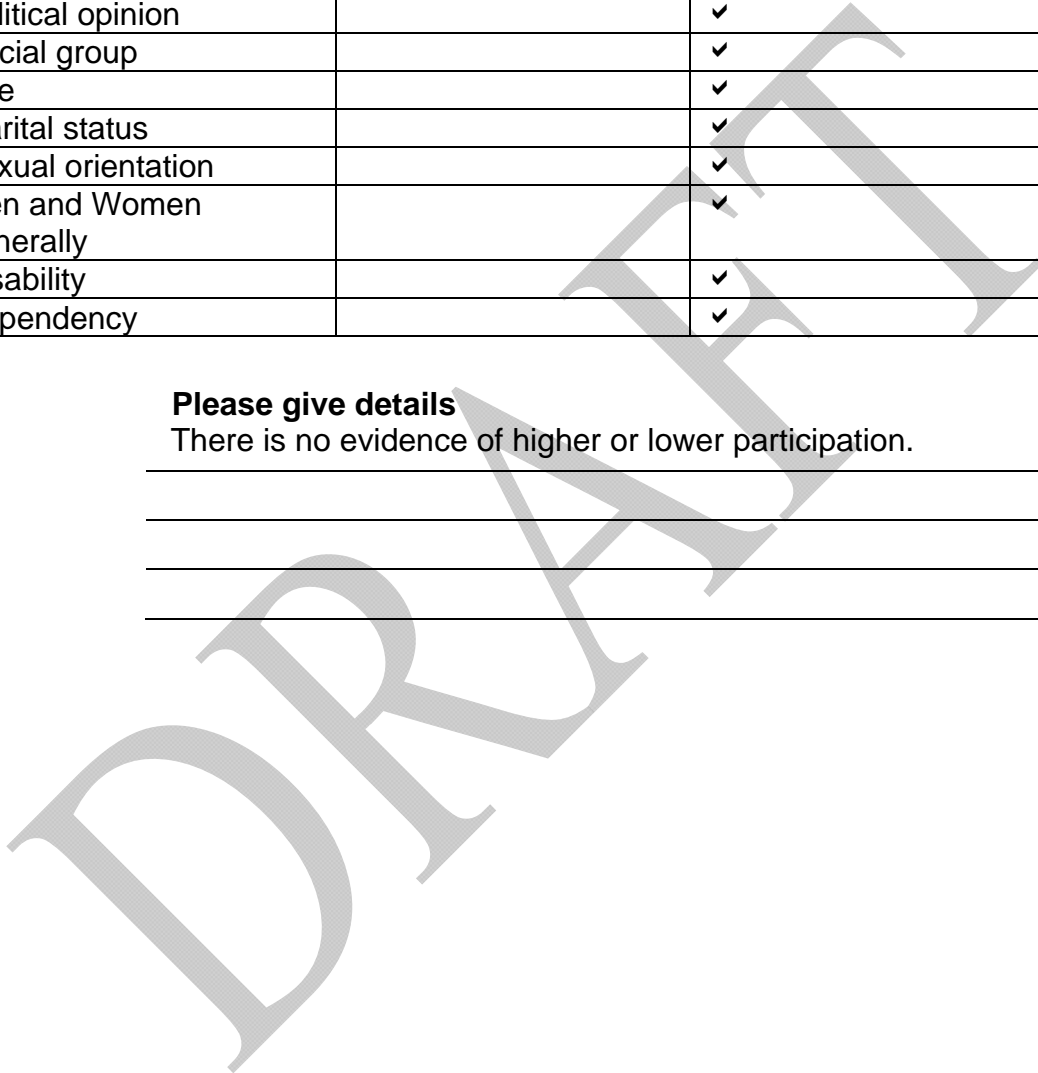
The following criteria must be considered when screening.

3.1 Is there any evidence of higher or lower participation or uptake by the following Section 75 groups?

	Yes	No
Religious belief		✓
Political opinion		✓
Racial group		✓
Age		✓
Marital status		✓
Sexual orientation		✓
Men and Women generally		✓
Disability		✓
Dependency		✓

Please give details

There is no evidence of higher or lower participation.



3.2 Is there evidence that any of the following Section 75 groups have different needs, experiences, issues and priorities in relation to this policy issue?

	Yes	No
Religious belief		✓
Political opinion		✓
Racial group		✓
Age	✓	
Marital status		✓
Sexual orientation		✓
Men and Women generally	✓	
Disability		✓
Dependency		✓

Please give details

Men and Women Generally

Men are more likely than women to become road traffic casualties, some 69% of all killed or seriously injured in 2007 were male. Carrying out works to improve road safety and reduce the number and impact of collisions will obviously have a positive impact on a greater number of males than females. However, females will not be disadvantaged and female road users will be afforded similar benefits to males from the safety improvements

Age

Statistics from the PSNI 2007 annual report show that the 57% of people killed and seriously injured on Northern Ireland's roads were under 35 years of age. 11% (137) were under 16 years of age, 28% (344) were aged 16-24 and 17% (212) were aged 25 -34. Although these statistics suggest that this policy may benefit a greater number of younger people, it does not disadvantage any age of road user.

3.3 Have consultations with the relevant representative organisations or individuals within any of the Section 75 categories, indicated that policies of this type create problems specific to them?

	Yes	No
Religious belief		✓
Political opinion		✓
Racial group		✓
Age		✓
Marital status		✓
Sexual orientation		✓
Men and Women generally		✓

Disability		✓
Dependants		✓

Please give details of any consultations carried out, and any problems identified.

No specific consultations were carried out with the Section 75 groups. However consultation is carried out on an individual scheme basis with Police Service of Northern Ireland, emergency services and local representatives and members of the local communities involved before revised speed limits are introduced. This policy will contribute to road safety and consequently it will have a positive impact on all road users.

3.4 Is there an opportunity to better promote equality of opportunity or community relations by altering the policy, or by working with others, in Government, or in the larger community in the context of this policy?

Yes

No

Please give details

3.5 It may be that a policy/legislation has a differential impact on a certain Section 75 group, as the policy has been developed to address an existing or historical inequality or disadvantage. If this is the case, please give details below:

N/A

3.6 Please consider if there is any way of adapting the policy to promote better equality of opportunity or good relations.

Please give details

N/A

Section 4

EQIA Recommendation

You should consider carefully in this section whether full EQIA is necessary, particularly where answers to any questions in Section 3 are affirmative.

4.1 Full EQIA procedures should be carried out on policies considered to have significant implications for equality of opportunity. Please fill in the following grid in relation to the policy/legislation.

Prioritisation Factors	Significant Impact	Moderate Impact	Low Impact
Social Need.			✓
Effect on people's daily lives.			✓
Effect on economic, social and human rights.			✓
Strategic significance			✓
Financial significance			✓

On rural roads there is often a difference of opinion as to what constitutes a reasonable balance between risk of a collision, travel efficiency and environmental impact. Higher speed is often perceived to bring benefits in terms of shorter travel times for people and goods. However, evidence suggests that when traffic is travelling at constant speeds, even at a lower level, it may result in shorter and more reliable overall journey times. This policy will have a low impact on the categories above in respect of any additional time or costs incurred through driving at lower speeds. This is because with inappropriate speed for the conditions come also with costs, the greatest of which is death and injury to people, increased community severance, and environmental impacts. The objective should be to seek an acceptable balance between costs and benefits, so that speed-management policies take account of environmental, economic and social effects as well as the reduction in casualties they may achieve.

4.2 In view of the considerations in Section 3 and 4 do you consider that this policy/legislation should be subject to a full EQIA? Please give reasons for your considerations. If you are unsure, please consult with affected groups and revisit the screening analysis accordingly. Yes/No/Unsure

Men are more likely than women to become road traffic casualties as some 55% of all casualties in 2007 were male. Carrying out works to improve road safety and reduce collisions will obviously have a positive impact on a greater number of males than females, however females will not be disadvantaged and female road users will be afforded similar benefits to males from the safety improvements.

The majority of people killed and injured on Northern Ireland's roads were under 35 years of age, (56% of all casualties in 2005). Although these statistics suggest that this policy will benefit a greater number of younger people, it does not disadvantage any age of road user from a road safety perspective.

As this policy will have a positive contribution to road safety it will have a positive impact on all Section 75 groups and without disadvantaging any group. The policy does not need to be subject to a full EQIA.

4.3 If an EQIA is considered necessary please comment on the priority and timing in light of the factors in table 4.1.

N/A

4.4 If an EQIA is considered necessary is any data required to carry it out/ensure effective monitoring?

Please give details

N/A

Main Groups Relevant to the Section 75 Categories	
<u>Category</u>	<u>Main Groups</u>
Religious belief	Protestants; Catholics; people of non-Christian faiths; people of no religious belief
Political opinion	Unionists generally; Nationalists generally; members/supporters of any political party
Racial Group	White people; Chinese; Irish Travellers; Indians; Pakistanis; Bangladeshis; Black Africans; Black Caribbean people; people with mixed ethnic group.
“Men and women generally”	Men (including boys); women (including girls); trans-gendered people
Marital status	Married people; unmarried people; divorced or separated people; widowed people
Age	For most purposes, the main categories are: children under 18, people aged between 18-65, and people over 65. However, the definition of age groups will need to be sensitive to the policy under consideration
“Persons with a disability”	Disability is defined as: A physical or mental impairment, which has a substantial and long-term adverse effect on a person’s ability to carry out normal day-to-day activities as defined in Sections 1 and 2 and Schedules 1 and 2 of the Disability Discrimination Act 1995
“Persons with dependants”	Persons with personal responsibility for the care of a child; persons with personal responsibility for the care of a person with an incapacitating disability; persons with personal responsibility for the care of a dependant elderly person
Sexual orientation	Heterosexuals; bi-sexuals; gays; lesbians

Appendix 2

Rural Development Council Checklist

Service Provision	Significant	Not Significant	Uncertain
1. Centralised service outlets: rural people or businesses generally need to travel to an urban centre to use service outlets. How will the proposed rural beneficiaries of a policy have reasonable access to it? Does policy delivery depend upon outlets, which are sparse in many rural areas?		✓	
2. Few information points: rural areas contain fewer (formal) places to obtain advice and information e.g. libraries, Citizens Advice Bureaux, public Internet points. If the policy's successful delivery requires communication with clients, how will those in rural areas have ready access to information and advice?		✓	
Mobility	Significant	Not Significant	Uncertain
3. Greater travel needs: on average rural people and businesses travel further to reach jobs, facilities, clients and other opportunities. What will the policy effects be upon existing requirements to travel, or the time, convenience and costs entailed for rural businesses or people (especially those on low incomes or without easy access to a car or public transport)?		✓	
4. Higher service delivery costs: rural distances plus small and dispersed populations can make it more difficult and costly to provide services to rural clients. Does the unit cost of providing the service to rural clients limit the extent or quality of service provision? Are there alternative ways to reduce costs and		✓	

increase provision?			
Economic Vibrancy	Significant	Not Significant	Uncertain
<p>5. Employment Opportunities: Will the policy affect the distribution of intended economic activity in different areas or training opportunities, e.g. the distribution of public sector jobs and the relative accessibility of job skills training.</p> <p>6. Employment Flexibility: many households require part-time employment or employment with flexible hours to allow them to balance work and life needs - for example, in maintaining a small farm or balancing care arrangements. Will the policy help or hinder this sort of employment need or reduce the need for flexibility through, for example, encouraging better childcare provision?</p>		<p>✓</p> <p>✓</p>	
<p>7. Small (economic) markets: the market in rural areas is often small or scattered, making it less attractive and possibly unviable for commercial operators. If a policy or initiative is to be delivered commercially, how will rural communities be served and / or how might it be ensured that they benefit equally from any planned use of competition amongst providers as a mechanism for reducing prices or increasing quality.</p>		<p>✓</p>	
<p>8. Small firm economy: more businesses are micro-businesses in rural areas (in particular agricultural) and there are few medium-sized or large firms. Will a policy or initiative target and be of benefit to, small (as well as larger) businesses?</p>		<p>✓</p>	

<p>9. Weak infrastructure: telecommunication infrastructures are generally less developed in rural areas, especially remote areas. If next generation telecommunications services (e.g. third generation mobile, digital TV or radio broadband) will play a significant part in implementing the policy or initiative, how will it be delivered in rural areas?</p>		✓	
<p>10. Infrastructure innovations: often, new innovations in infrastructure or service provision are introduced into urban areas first. Can innovations also be tested in rural areas? Might rural areas provide a stronger test in the first instance? Are there plans to roll out new services or infrastructure to rural areas to minimise long periods of inequality?</p>		✓	
<p>11. High Impact Infrastructure: could a fast or high capacity infrastructure requirement represent a significant impact on environmental or social assets in rural areas (e.g. the impact on social cohesion of increased mobility stemming from the upgrading of roads) could it be modified to reduce these impacts whilst still delivering policy benefits?</p>		✓	
<p>Social Well Being</p>	<p>Significant</p>	<p>Not Significant</p>	<p>Uncertain</p>
<p>12. Countryside amenity and access: the countryside provides important recreational opportunities and a place to get away from it all for people wherever they live. What will be the impact of the policy or initiative for people wishing to reach and use the countryside as a place for recreation and enjoyment?</p>		✓	

13. Needs not concentrated: rural disadvantage and social exclusion does not exist in the types of concentrations found on urban housing estates or in inner city neighbourhoods. It is generally scattered and, in wealthier parts of the countryside, exists side by side with affluence. Will a policy, especially area-based initiatives, have provision for reaching people or households in the open countryside as well as more concentrated locations of disadvantage?		✓	
14. Different types of need: the mix of deprivation characteristics is somewhat different between rural and urban areas. Poor access to services (including health & social services), low local wages, limited job opportunities and a lack of affordable housing are key rural issues. What needs or deprivation indicators will be used to target an initiative: will they reflect both rural and urban concerns?		✓	
Social Capital	Significant	Not Significant	Uncertain
15. Low institutional capacity: private, public and voluntary sector bodies in rural areas tend to be smaller and often struggle to forge partnerships or submit bids, especially to tight timescales. If a policy or initiative depends upon local institutions, how will it allow for areas with low institutional capacity? How might it avoid a bias in favour of urban representation and influence if partnership formation is a key method for delivery or for subsequent mainstreaming of learning from pilot initiatives?		✓	
16. Social Capital and community cohesion: provision of services or design of village renewal, new or regeneration of housing estates can		✓	

<p>impact on sense of community and social capital. Will the policy contribute to strengthening or weakening social capital and hence, the health and sustainability of rural communities?</p>			
<p>Natural & Cultural Capital</p>	<p>Significant</p>	<p>Not Significant</p>	<p>Uncertain</p>
<p>17. Land-based industries: land-based industries (e.g. agriculture, forestry, fishing and extraction/mining) have an important impact on the rural landscape, environment and biodiversity, and remain significant employers in certain rural areas (despite being a fairly small element of the overall rural economic base). Will a policy have any particular impacts on-land-based industries and, therefore, on rural economies and environments?</p>		<p>✓</p>	
<p>18. Landscape quality and character: our rural landscapes are highly valued for their beauty and distinctiveness and contribute significantly to our tourism potential. What will be the likely policy impact upon the quality and distinctive character of natural and built rural landscapes, especially (but not only) on protected landscapes and on biodiversity?</p>		<p>✓</p>	
<p>19. Local Craft and Food production: A key resource for the growth of many micro-businesses in rural areas is the use of traditional crafts, foods and recipes. Will the policy have an impact on the production of any of these, (e.g. regulations affecting food hygiene and production standards) and if so how traditional approaches might be accommodated.</p>		<p>✓</p>	