

1.1 Purpose of this Document

The purpose of this guidance is to provide a reference for all agencies (local authorities, public transport operators, etc.) in considering the appropriate and acceptable location of **new or amended** bus stops on rural roads.

Note 1

This document is intended to provide guidance on the location of standard bus stops. While the general principles and considerations in this guidance have universal application, additional considerations may apply to bus stopping points that function as route termini, timing points or as interchange locations (where passengers routinely are transferred between buses).

Note 2

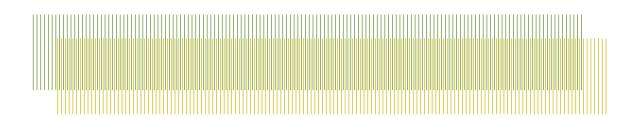
Bus stop licence renewal is undertaken by the National Transport Authority based on application from public transport operators. There is no requirement for road authorities to inspect existing bus stops as part of a bus licence renewal application. The road authority will be contacted by the Operator in the case of a new stop being added to a licence, as this will require a Section 16 approval (see 1.3.2 below) by the road authority. Road Authorities may also request that bus service frequency/ timing changes at already approved locations be referred to them for new approval, if they consider that the area is one of particular concern e.g. due to congestion at certain times of day.

Note 3

There is a general requirement under Section 13 of the 1993 Roads Act for road authorities to consider the needs of all road users in constructing and maintaining roads. A periodic review of particular bus routes and stops (including site visit and/or active observation of operational buses) could be included in a roads maintenance programme, such that any specific issues to do with bus stops have been identified and appropriately addressed.

Note 4

This document deals with issues to do with the location of bus stops—it is not a design guide to the physical or geometric requirements for bus stops. It is intended to issue separate guidance on this in the future.



1.2 Meaning

For the purposes of these guidelines, a "Rural Road" is any road outside the "Built Up Area".

A built-up area is defined by Section 2(1) of the Local Government Act 2001 as the area of a city, borough or town council within the meaning of the Act. For speed limits, Section 5 of the Road Traffic Act 2004 sets a default speed limit of 50km/h for built-up areas.

The abolition of Town Councils in 2014 has not affected the meaning, definition and scope of these built-up areas.

1.3 Legislation

1.3.1 Licensing Authority

The National Transport Authority (**"Authority"**) is the statutory body for licensing public transport services in the State, under the provisions of the Public Transport Regulation Act, 2009. (The Authority is also the procurer/contracting agency for Public Service Obligation "PSO" public bus services nationwide, including some in rural areas).

Under the 2009 Act, the Authority has to consider a variety of matters in determining whether or not to issue a licence. Section 10 (b) obliges *inter alia* that the Authority take into account the following:

1. "the need to provide a well-functioning, attractive, competitive, integrated and safe public transport system of services and networks for all users,

2. the need for the preservation of good order and safety on public roads".

The Authority works closely with the road (local) authorities in its deliberations.

1.3.2 Direction by Road Authority

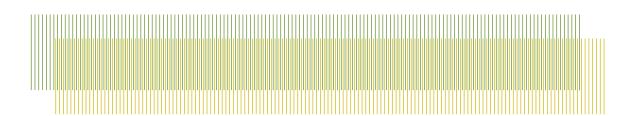
The local authority as the competent **road authority** has an important role in relation to the location of bus stops under Section 85 of the Road Traffic Act, 1961 as amended by **Section 16** of the Road Traffic Act, 2002.

The amended Section 85 of the Road Traffic Act 1961 states:

- 1. A road authority may, by notice in writing, direct, in respect of a route upon which buses are operated, that specified points shall be stopping places at which persons may board or descend from buses or that specified places shall be used as stands for buses.
- 2. A road authority may by notice in writing amend or revoke a direction given, or amendment made, by it under this section.
- **3.** A person operating or proposing to operate a bus service may apply to the road authority in whose functional area the service is being or will be operated for a direction under this section and the authority may, if it so thinks fit, after consultation with the person, give a direction specifying such points for stopping places, and places for stands, for buses as it considers appropriate.
- **4.** A notice under this section may direct that —
- A. one or more of the stopping places specified in the notice shall be used only for boarding buses or, as the case may be, only for descending from buses, or
- B. one or more of the stopping places so specified, or one or more of the stands so specified, shall be used only by buses providing a service or services operated by a specified person or by specified persons.
- 5. A notice under this section —
- A shall be given or sent by post to the person who is operating the bus service to which it relates, and
- **B.** shall specify the date on which it comes into operation, and the notice shall come into operation on the date so specified.
- 6. A certificate purporting to be signed by an officer of a road authority and stating that a notice under this section in specified terms was in force on a specified day or during a specified period shall, without proof of the signature of the person purporting to sign the certificate or that he or she was such an officer, be evidence in any legal proceedings until the contrary is shown that a notice under this section in the specified terms was given or sent by post to the person named in it and that it was in force on the specified day or during the specified period.
- 7. In this section —

"bus" means omnibus;

"road authority" has the meaning assigned to it by the Roads Act, 1993.



1.3.3 Amending or Revoking a Bus Stop

Please note also that Section 16 of the 2002 Road Traffic Act includes the following:

2. Directions under section 85 of the Principal Act in force immediately before the commencement of this section shall continue in force after such commencement as if given under section 85 (as inserted by this Act) of the Principal Act and may be amended or revoked accordingly.

Under this provision, road authorities can revoke or amend (relocate) bus stops, restrict the picking up and/or the setting down of passengers or the standing of buses at any previously approved stop location, should said authorities identify a need to do so.

However, it is important that the process behind such decisions provide **clarity** and **transparency**. It is recommended that road authorities formalise the process of obtaining the required information (e.g. application form including exact information about the location of the proposed stop, the intended usage of said stop, whether the stop is for pick up or set down and if standing is allowed, for how long).

It is also recommended that road authorities formalise the notifications regarding decisions they may take. A local/road authority can amend a bus stop permission at any time by sending a written notice to the relevant operator. However, in reaching a decision, it is recommended that the road authority actively engages with the bus operator to discuss issues problems with bus stop locations, seeks to find mutually acceptable solutions in a fair and transparent decision-making process where possible, and ensures the implementation of the decision made.

All such formal notifications should also be sent to the Authority at:

stop.approval@nationaltransport.ie

so that it can amend any effected public bus passenger service licence to reflect the change.

OVERALL REQUIREMENTS FOR LOCATION OF BUS STOPS

2.1 Typical Bus Stop Activity

The following are standard activities that occur at or around rural bus stop locations:

Pedestrian Activity

Pedestrians walking along a road towards a bus stop; Pedestrians crossing the road to/from the bus stop; and Pedestrians standing at the roadside waiting to hail a bus.

Bus-Related Activity

Bus slowing down on approach to bus stop; Bus stopped at bus stop; Passengers boarding and alighting; Bus departing bus stop; and Driver outside vehicle, assisting passengers and luggage.

Private Car Activity

Passenger set down/collection by private car near or at bus stop; and Private car idling/parked, awaiting bus arrival.

Interchange/Terminus/Layover/Park and Ride

See Section 1.1. Note 1, and additional information in 4.2.2 on bus-to-bus transfers.

2.2 Objectives

There are two primary objectives that relate to the siting of bus stops in rural areas. These are:

Passenger Need

The selected location must address the needs of intending and potential passengers; and

Safety

The selected location must be acceptable from a safety perspective.

Each of these objectives is addressed in turn in the following sections.

PASSENGER NEED

3.1 Overview

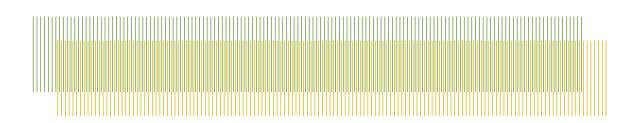
Public transport by bus is an essential need in almost all areas of the country. However, public transport can be difficult to organise in rural areas because of the dispersed nature of populations and the potential trade-off between maintaining accessibility and achieving competitive journey time in designing services. Accordingly, it is important that the location of a particular bus stop considers the issues set out in the following sections.

3.1.1 Close to Passenger Origin/Destination

- An effective public transport system needs stopping locations that are convenient for passengers, both in terms of journey origins and journey destinations. The selection of bus stop locations that reduce walking times from origins and to final destinations should improve the attractiveness of public transport and contribute to the achievement of national, regional and local transport policy objectives.
- Locating stops in positions that do not provide an appropriate level of proximity for passengers may mean that some potential passengers will not use the service.
 (Potentially this loss of patronage could be the difference between retention and loss of the particular route).
- In this regard, as a general approach, road authorities should consider the retention of existing stops insofar as possible, as these probably already meet an expressed demand from customers. (In some cases, this may require mitigation measures to address specific issues or concerns).
- The timetabled bus frequency and associated passenger activity should be considered —this guidance is intended for standard bus stops in general. While the guidance will be helpful, the assessment of high-frequency or multi-route shared stops, (where it is likely that buses will be standing for a period, or passengers may be waiting for an extended time) will require site specific detailed consideration.

3.1.2 Accessible Location—Junctions

- The location of the particular bus stop has to be accessible to intending passengers, and as convenient as possible.
- In general, bus stops should not be located at some distance along roads bound with fences or blank walls—these locations are inconvenient to all passengers residing away from the main road.



- For instance, if the bus stop on a main road is intended to serve the residents of a
 particular townland, estate or conclave of houses, it is important that the bus stop
 should be located close to where these residents access the main road.
- In effect, it should be expected that bus stops would be located proximate to junctions, as opposed to being positioned at a significant remove.

The preferable location of a bus stop is on the **exit side** from a junction, for the following reasons:

The junction itself and any crossing/turning movements will remain clear to approaching traffic, and will not be obstructed by a stopped bus; and

Drivers will be expecting to slow on approach to a junction, and this offers the most forgiving (slower) speed regime for traffic approaching buses that are stopped on the far side of the junction.

3.1.3 Bi-directional Suitability—Locating Bus Stop Pairs

- Journeys in one direction by public transport almost always have a corresponding journey in the reverse direction. Accordingly, bus stop locations usually need to be considered **in pairs**—one stop in each direction.
- This means that consideration needs to be given to both directions of travel in locating bus stops. In an ideal scenario, the bus stop for a return journey would be located opposite the out-going stop. However, geometric considerations will normally require some off-setting distance between the inbound and outbound bus stops.
- In such cases, the level of off-set between stops in each direction should be within an acceptable distance (e.g. 50m to 100m) such that the functionality of the stops operating as a pair is retained.

For example, where a pair of bus stops is located in a standard 4-arm crossroads, each of the bus stops will be located on the exit from the junction, and therefore will not be directly opposite each other—however, they will still operate as a functional pair.

PASSENGER DETAIL

4.1 Principles

The need for consideration of safety in bus stop location is both obvious and necessary.

Specifically, bus stops should be located where:

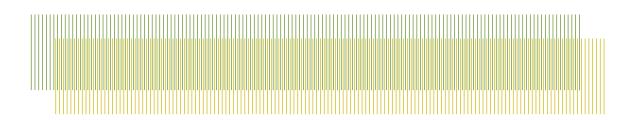
- Passengers can reach the bus stop safely, either by foot or by being dropped off;
- Passengers can leave the bus stop safely, either by foot or by being picked up;
- Passengers can wait safely at the bus stop; and
- Passengers can safely cross the road in the vicinity of the stop.

In addition, bus stops should be located where:

- The bus can stop safely in the direction of travel; and
- The driver/passenger can access the luggage facility if required.

4.2 Overall Approach to Management of Safety

Ideal arrangements are rarely available when considering the location of bus stops in rural area, and instead, an informed judgment has to be made on the suitability of a location based on a number of factors. This judgement has to take into account the positive benefits of the availability of a bus stop location at a convenient location for intending passengers, but also consider the suitability of introducing or retaining a vehicle stopping location into the road environment at that location.



4.2.1 Duration of Bus Stop Activity

In exercising such decision making, it should be borne in mind that the use of a bus stop in rural areas is generally for very limited periods each day, (unlike stops in busy urban areas which can see continual heavy usage).

However, should the bus service:

- Be of high frequency, generating frequent passenger movements in the area; and/or
- generate local significant set-down and pick-up activity; and/or
- generate roadside all-day parking (i.e. informal park-and-ride).

then the safety aspects of these factors should also be considered.

4.2.2 Bus-to-Bus Transfers/Interchange

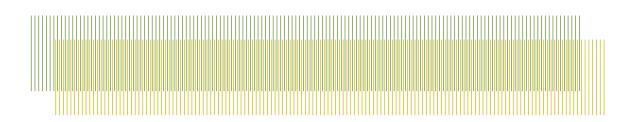
Stopping locations on rural roads may be proposed to act as transfer point between long distance regular services and more localised services. Likewise, the Authority is increasingly mobilising Local Link services to interchange with regular contracted or licensed services so as to give greater access to the public transport system to less mobile population (e.g. older people) and to isolated remote areas.

Bus to bus transfer typically entails the first bus waiting at the bus stop (sometimes for many minutes) for the arrival of the connecting bus, and the subsequent transfer of passengers and luggage between the two buses. If the stop is proposed as a transfer point, the road authority needs to ensure that these functions can be carried out safely at the proposed location.

4.2.3 Use of Mitigation Measures

In certain locations, the introduction of mitigation measures may assist in making a location which is desirable from a passenger connectivity perspective, acceptable also from a safety perspective.

These mitigation measures are covered in Chapter 5 of this guidance.



4.3 Safety Record

In reassessing existing bus stop locations, it is important to take their safety record into account. There are many bus stop locations in rural areas that have been in place for numerous years, and which have operated successfully and safely over those periods, notwithstanding that some of these bus stops may not be positioned where conventional road design approaches would suggest.

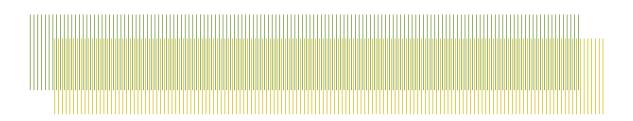
4.3.1 Consultations Regarding Safety

If a bus stop location has been in operation for a number of years and does not have an adverse accident record, the presumption should generally be on the continuance of that location.

However, where feasible, the road authority should consult with the operator regarding any specific incidents (accidents, near misses, etc.) or concerns that the operator may be aware of, that could, or should be addressed in the continued operation of the bus stop. In addition, the road authority should consult with An Garda Síochána regarding any specific incidents they are aware of, or concerns or problems that they may have with the stop location.

The consultations should be recorded as part of the decision process suggested in 1.3.3 earlier. If subsequently it emerges that such incidents occurred at a particular bus stop, the local authority would be entitled to revoke the bus stop.

Note: Such consultation with both the operator and An Garda Síochána are specifically recommended in situations where the traffic regime on the road may have changed over time in terms of volumes, patterns, profile of road user mix, or speeds.



4.4 Key Safety Factors

The key factors that should be considered in the assessment of bus stop locations from a safety perspective include following:

- Type of road;
- Driver frustration;
- Accident history; and
- Visibility.

Each of these factors is discussed below:

4.4.1 Type of Road

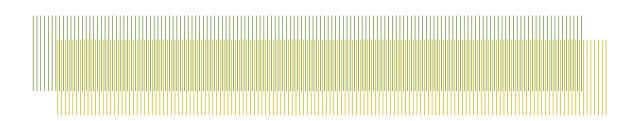
Different road types do impact on the location of bus stops.

Local rural roads, which have an access function, are likely to have regular occurrences of slow moving agricultural vehicles, stopped vehicles, pedestrians or cyclists on the road, herding of animals, and similar issues on a regular basis. Traffic volumes are relatively low on these single carriageway roads.

The introduction of stopping bus services on such roads is unlikely to give rise to significant concerns in most locations, subject to adequate visibility being available at the stopping points. In general, it should be acceptable that vehicles following the bus can wait for passengers to board onto or alight from a stopped bus. In other words, on local roads, the capacity for vehicles to overtake a stopped bus is not necessarily a prime safety factor.

Strategic routes such as regional roads, national secondary roads and former national roads are likely to have higher traffic volumes and speeds, and may be subject to commuter peaks. This traffic regime needs to be considered when considering the introduction of new bus stops.

In general, these routes will have hard shoulders, longer forward visibility, and perhaps overtaking facilities. Speeds may be higher also. In these circumstances, visibility (see 4.4.4) and safe pedestrian crossing points are key issues in assessing bus stop locations.



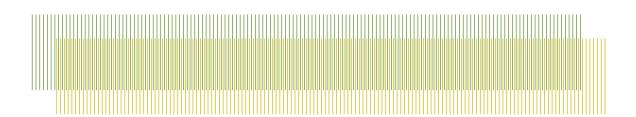
4.4.2 Driver Frustration

It will sometimes be the case on Strategic Routes that provision needs to be made to allow following vehicles to pass by the stopped bus. This is particularly the case where:

- the road is part of a commuter route;
- the road is generally free-flowing; and
- the road has reasonable traffic flow in the opposing/non-commuter direction.

In these situations, the potential for driver frustration behind a stopped bus could lead to potentially dangerous overtaking activity at the bus stop. These specific circumstances may require that the bus stop be located in the area of a hard shoulder or other indented hard standing. (Specific design guidance on bus stop geometry and construction is not included in this note).

However, this arrangement will not be required in the many cases where it will be acceptable for the bus to stop on the carriageway, and for following vehicles to wait until passengers have boarded or alighted.



4.4.3 Accident History

Knowing whether or not there is an accident history at a location is important in the assessment of the location from a safety perspective.

In general, where there is a history of accidents at a particular site, caution will need to be exercised before approving such position for a bus stop. The local authority should check whether the particular bus stop location has a record of accidents. If so, a review of the circumstances recorded in relation to the accident(s) should be undertaken, to identify whether those circumstances are material for consideration of the installation (or retention) of a bus stop.

However, as stated earlier, if a bus stop location have been in operation for a number of years and does not have an adverse accident record, the presumption should generally be on the continuance of that location.

However, the local authority should consult with the operator (and other stakeholders as required, e.g. An Garda Síochána, property owners in the vicinity of the stop etc.) regarding any specific incidents or concerns that they may be aware of, that could or should be addressed in order for the bus stop to continue to operate safely.

4.4.4 Visibility

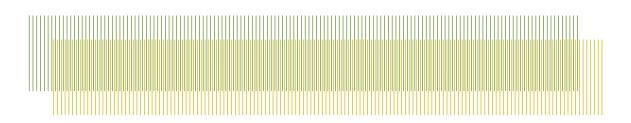
In relation to bus stop locations, it is important that there is adequate forward visibility available for the ambient speed of traffic on the particular section of road. This will permit following vehicles sufficient opportunity to see a stopped bus and safely stop, as well as enabling vehicles approaching from the opposite direction to take additional care in the vicinity of a stopped or stopping bus.

The forward visibility is also important for drivers to observe pedestrians/passengers at the road edge, or crossing the road near the bus stop.

There are two aspects to the assessment of visibility:

(i) the availability of an appropriate Stopping Sight Distance; and

(ii) ensuring that there are no items of obstruction to that visibility such as overgrown hedges or vegetation.



4.4.4.1 Stopping Sight Distance

Design Standard TD 9 /12 of the Design Manual for Roads and Bridges published by Transport Infrastructure Ireland sets out guidance in relation to Stopping Sight Distance for all-purpose rural roads (i.e. local roads, and single carriageway roads).

	Stopping Sight Distance (m) for Various Design Speeds					
Design Speed (km/h)	100	85	70	60	50	42
Desirable Minimum Stopping Sight Distance (SSD)	215	160	120	90	70	50
One Step below Desirable Minimum SSD	160	120	90	70	50	40
Two Steps below Desirable Minimum SSD	120	90	70	50	40	30

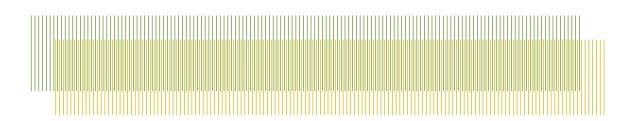
The relevant Stopping Distances from various ambient design speeds are set out below:

It is recommended that the Desirable Minimum Stopping Sight Distance is available on the immediate approaches to bus stops. However, a single step-down relaxation may be considered where:

- 1. the bus stop is in a hard shoulder or otherwise off-line from the carriageway; or
- 2. advance signage is included, indicating that an approaching vehicle should proceed with particular caution at that location.

The formal technical assessment of forward visibility and ambient speeds can be a significant undertaking. Accordingly, it is recommended that the assessment is undertaken by visual inspection by a qualified engineer or qualified technician.

In the absence of any other specific information, the design speed may be assumed to be the speed limit applicable to the relevant section of road.



4.4.4.2 Visibility Obstructions

As part of the assessment of visibility, an on-site check may be worthwhile. The test should confirm that there are no significant items of obstruction to the available visibility. The most common obstruction on rural roads is overgrown hedges. If there are overgrown hedges or trees at the proposed bus stop location that have the potential to adversely affect the available visibility to a detrimental level, these should be cut back regularly, or removed. The on-site check will also identify any issues with vertical curves (sag, crest) as well as horizontal bends that may not be obvious from maps/plan drawings.

4.4.4.3 Hours of Darkness

During the hours of darkness, stopping buses and associated passenger activity may present additional issues that are not obvious during a daytime site visit. (For instance, in the absence of ambient lighting, passengers/pedestrians may choose to stand or walk on the road instead of a soft verge). This will need to be considered in the overall assessment of visibility.

4.4.5 Strategic Routes and Review of Road User Activity

On strategic routes (see 4.4.1), a periodic review of road user activity at bus stops may be useful to inform decisions on bus stop location. In particular, this road user audit should identify:

- how and where passengers cross the road to/from the bus stop;
- the nature and extent of drop-off and pick-up by private cars;
- the occurrence and extent of park-and-ride by private cars; and
- the interaction of these activities with moving traffic, and the bus.

ADDITIONAL MITIGATION MEASURES

The previous two sections addressed the core objectives and the principles of **"Passenger Need"** and **"Safety"**.

It may occasionally occur that a location is satisfactory from the "passenger need" objective, but requires certain additional mitigation measures to be put in place in order to address safety concerns and become an acceptable bus stop location.

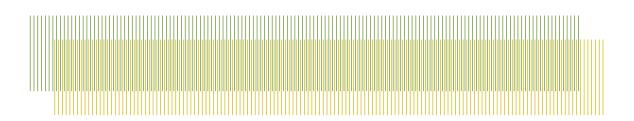
It is important that these **additional mitigation measures are only proposed where necessary** —a blanket approach to their provision would ultimately be counter-productive, potentially resulting in a diminution of the effectiveness of the mitigation measure itself.

(For instance, the use of warning signage in selective locations could be very effective in instilling caution—a wide-scale use of such sign would be likely to result in the warning becoming more normalised and consequently ignored).

Recognising the above concern and the need for careful use of these provisions, the suite of potential mitigation measures includes the items set out below.

- **A**. Additional Signage;
- B. Additional Road Markings;
- C. Lighting;
- D. Road Layout Changes; and
- E. Bus Stop Re-location.

Taking each in turn.



5.1 Additional Signage (only if required)

Advance warning signage may be considered where circumstances require their provision. However, as stated earlier, the use of additional signage should only be considered where there is a particular need evident, and should be avoided as a blanket provision for all bus stops.

The Traffic Signs Manual sets out a range of advance warning signage, and their uses. Particularly relevant examples are set out below.

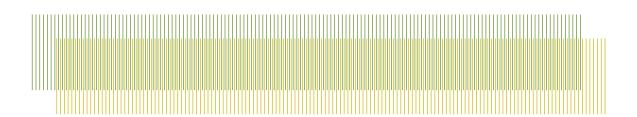
In circumstances where the bus stop or proposed bus stop is located at a junction, it may be appropriate to emphasis the presence of a junction to approaching traffic. This will alert drivers to be more cautious in their approach to the location, potentially making the operation of the junction safer as well as assisting in the safe positioning of the bus stop at that location. Three junction warning sign examples from the Traffic Signs Manual are shown below.



Separately, while, at present, there is not a conventional sign for **"Bus Stop Ahead"** included in the Traffic Signs Manual, sign W 140 below is an approved sign to warn in advance of the presence of pedestrians. Section 6.17.4 of the Traffic Signs Manual states in relation to this sign:



"The sign may also be provided where vulnerable road users are likely to cross a road in appreciable numbers."



5.1.2 Additional Road Markings (only if required)

The Traffic Signs Manual provides a general introduction to the use of road lines (road markings). Section 7.1.8 states:

"Road markings have the limitation that they may be obscured by snow, leaves or debris on the carriageway. Their conspicuity is impaired when wet or dirty and their durability depends largely on their exposure to traffic wear.

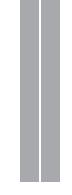
Nevertheless, they serve a very important function in conveying to drivers information and requirements which might not otherwise be possible by the use of upright signs. They have the advantage that they can often be seen when an upright sign is obscured and, unlike such signs, they can provide a continuing message to the moving driver."

In relation to bus stop locations, use of a Solid Centre Line, (if necessary, supplemented by the **"No Overtaking"** sign—see section **5.11** in Traffic Signs Manual) may be appropriate in certain locations.

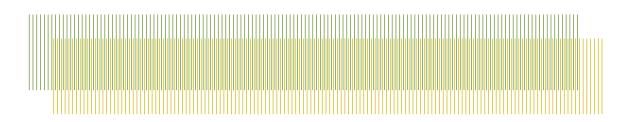
An example of this might be where it is undesirable to permit following vehicles to pass a stopped bus due to inadequate forward visibility. In such cases Road Marking 001 may be required to ensure that vehicles stop and queue behind a dwelling bus at a bus stop.



RUS 014 No Overtaking



RRM 001 Continuous Single Centre Line



In addition, where circumstances require it, the Solid Centre Line may be accompanied by the use of the text **"Slow"**. An example of such location might be where the bus stop is located after a bend in the road, where the visibility to the stop location after exiting the bend may be marginally adequate.

It should be noted that the Traffic Sign Manual does state: "Discretion should be exercised in the use of this marking, to ensure that its impact is not reduced by proliferation."

5.1.3 Lighting

Most rural services are intended to pick up or set down passengers during the hours of darkness. However, it is recognised that artificial lighting is not available for most rural bus stop locations. Accordingly, it should not be a requirement in the provision of a bus stop in a rural area.

However, lighting can assist the personal safety for the passenger, as well as providing the bus driver with advanced view of passengers. This lighting may be provided by an isolated public lighting lamp, ambient lighting from a filling station forecourt or commercial premises, etc.

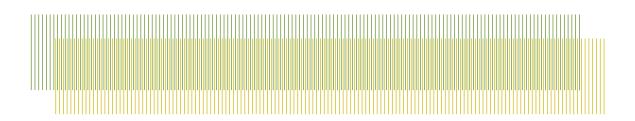
In circumstances where the issue of lighting materially impacts upon the acceptability of a bus stop position, consideration should be given to:

- A. whether there is a nearby location with sufficient ambient artificial light during the hours of darkness; or
- B. the provision of a public lighting pole at the relevant location.

5.1.4 Bus Stop Relocation (Amend)

In some situations, it may be possible to identify an alternative bus stop, in discussion with the bus operator, which is more suitable for bus stop activity, in the context of all the considerations within these guidelines.

In such cases, it is important that the change is properly documented, agreed with the licensing authority, and implemented in a manner that keeps passengers and local stakeholders fully informed. ---



Road Layout Changes

Road layout changes are generally expensive and are not expected to be required in most decisions related solely to bus stop locations on rural roads. However, there may be limited circumstances where such changes are necessary. Examples of possible types of layout changes include:

- A. Provision of a bus layby;
- B. Alteration of junction layouts to increase visibility;
- C. Improved pedestrian crossing points or opportunities; or
- D. Local carriageway alignment or width changes.

In these cases the necessary works would fall to be constructed by the relevant local authority and would be carried out in line with general road construction guidance.