



Safe Routes to Trunk Road Schools – Part-time 20mph Speed Limits

Instructions for Use

This guidance document provides guidance for the Welsh Government and its Agents in developing part time 20mph schemes as part of the Safe Routes to Trunk Road Schools programme and details the rationale behind the policy, the criteria for assessing sites and the design details required for implementation of the measures. This document should be read in conjunction with the Traffic Signs Regulations and General Directions.

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1 Introduction

- 1.1 This document provides technical advice for Welsh Government and its Agents for part time 20mph speed limits as part of the Safe Routes to Trunk Road Schools programme. The guidance covers the provision and implementation of measures to increase driver awareness, and achieve reductions in vehicle speeds in the vicinity, of schools adjacent to and within 50m of the trunk road.
- 1.2 This guidance should be implemented along with engineering measures, such as footways and crossings, in support of walking and cycling to schools. These measures will have been identified by Welsh Government through risk assessment by the Trunk Road Agents, consultation with the local authority officers and pupils at the school, as well as concerns raised by the public in Ministerial correspondence.
- 1.3 This guidance only deals with the part-time speed limit element of a Safe Routes to Trunk Road Schools scheme. It does not deal with the design or implementation of other engineering measures which may arise from the risk assessment process.
- 1.4 This guidance does not replace extant Design Manual for Roads and Bridges (DMRB), Traffic Signs Manual, or Active Travel Design Guidance.

2 Background

- 2.1 The Minister for Economy Science and Transport has committed to implementing part-time 20mph mandatory speed limits outside schools on the trunk road. In considering the appropriateness of providing a part-time 20mph speed limit outside the trunk road schools, Welsh Government, through consultation with Trunk Road Agent, Local Authorities and school pupils, have considered whether the risks to pupil safety outlined in 3.4 occur. Welsh Government has compiled a list of schools where part-time 20mph speed limits are to be implemented; this is a live document and will be kept under review.
- 2.2 This guidance has been prepared following a review of evidence from Northern Ireland^{1,2} and Scotland^{3,4} on the effectiveness of 20mph speed limits outside schools in reducing vehicle speeds, improving safety and increasing active travel to schools.
- 2.3 The Welsh Government has developed a programme of measures outside schools to form the Safe Routes to Trunk Road Schools programme. Measures to accommodate safe walking and cycling to school along and across the trunk road in the vicinity of the school have been identified through risk assessment (refer to guidance on risk assessment of walked routes to school⁵), discussions with the local authority, and consultation with the pupils on the specific hazards. The Welsh Government has compiled a list where other engineering measures are to be provided, or in some cases where they are to be investigated further. This is a developing programme of work, as levels of risk to pupils may change, or indeed existing schools may close or new facilities open.

3 Part-Time 20mph Speed Limits

3.1 The objectives of implementing part-time 20mph speed limits outside schools on trunk roads are to:

- Enhance the safety of the trunk road at school drop-off/pick up times,
- Reinforce driver expectation of the likely presence of children, and
- Encourage safe and active travel to school.

However, consideration should be given to the need to balance the safety of pupils with minimising the delay to trunk road traffic, as far as possible.

3.2 With this in mind, the success of a part-time 20mph scheme will be improved by:

- Having times of operation coinciding with on-road, school activity i.e. school start and end times, with an allowance for breakfast/after school clubs as appropriate;
- Appropriate levels of speed limit enforcement;
- Engaging with the school on the correct times for the speed limit to operate, this includes ensuring that the signs are not activated on school inset/teacher training days, when pupils are not present. Welsh Government shall undertake engagement to establish operational times.
- Consideration being given to the speed limit operating at lunchtime where there is demand e.g. a nursery school attached to the school with morning and afternoon sessions

3.3 Whilst the Setting Local Speed Limits in Wales⁶ and DfT Circular 01/2013⁷ provide guidance on the minimum length of speed limits, a part time 20mph speed limit shall be as short as possible whilst ensuring that it covers the risks in 3.4. The minimum length for a speed limit outside a school shall be 200m.

3.4 In establishing the extent of a part-time 20mph, the Trunk Road Agent shall consider the following in assessing the risk to pupils travelling to/from school:

- Where do pupils cross the road?
- Where do pupils alight from vehicles?
- Does parking cause an issue near the school?
- Is the traffic flow /movements/vehicle speeds high, affecting the ability of pupils to cross the road?
- Whether Installation of a part-time speed limit in the vicinity of the school may be desirable to achieve lower traffic speeds and highlight the presence of the school to through traffic.

3.5 The reduced speed limit shall be focussed around the school, and the hazards connected with pupil travel to school (refer to 3.4) and the objectives of a part-time 20mph (refer to 3.1). There is not one solution for all schools; the length of each part-time 20mph scheme shall be developed based on the risks to pupils walking/cycling to a specific school.

3.6 The number of side roads within a part-time speed limit, and cost of the additional signs required to treat these side roads, shall not be used as a reason to shorten the part-time speed limit.

3.7 As part of the scheme design, the Trunk Road Agent (through site visit at the appropriate times of day) shall establish the required length of the speed limit and provide the reasoning for this length, in light of the above, to Welsh Government for

approval as part of the scheme design. The reasons for establishing the speed limit length shall be referenced in the Statement of Reasons for the Traffic Regulation Order.

- 3.8 The Trunk Road Agent shall also consider the need for a part time buffer zone speed limit, based on risk assessment, where the part time 20mph speed limit is within a higher speed limit (40, 50mph or National Speed Limit).
- 3.9 Layouts for differing speed limits are available for part-time 20mph signing schemes in the attached Appendices which utilise electronic Variable Message Signs (VMS). Variable Message Signs are the preferred option to ensure there is no misunderstanding to drivers on the speed limit. A trial of part-time 20mph speed limits in Scotland, which used standard speed limit roundel plates with flashing amber lights, found that these sign arrangements confused drivers and therefore devalued the message and the speed limit.
- 3.10 As part of scheme development, the Trunk Road Agent shall make contact with the local authority to discuss the need for any change to speed limit on the side roads (possibly dictated by restrictions to sign location), and whether the local authority has any intention to implement a 20mph speed limit on the adjoining streets around the school.
- 3.11 Reference shall be made to the current Traffic Signs Regulations and General Directions, and the guidance in the relevant chapters of Traffic Signs Manual.
- 3.12 All signing arrangements for these schemes shall be submitted to the Welsh Government for traffic signs authorisation.

4 Standard signing arrangements outside schools

- 4.1 Typical arrangements for part-time speed limits outside schools are shown in the Appendices. Consideration shall be given to any existing repeater signs which may need to be replaced, in line with the current Traffic Signs Regulations & General Directions (TSRGD).
- 4.2 Ideally, where a new speed limit begins, terminal signs should be paired (Direction 9, TSRGD). Notwithstanding this, Welsh Government has powers under Direction 59 to dispense with this requirement, by means of Special Direction authorised by Welsh Government. Designers should undertake a risk assessment to help decide on the need for one or two terminal signs at the start of the part-time speed limit, considering things that would make the scheme unenforceable. The single terminal sign must be visible so, for example:
 - There must good forward visibility to the sign. (Forward visibility to the sign should comply with Traffic Signs Manual)
 - Vehicles can't park in front of the sign.
 - The sign face must be clear of vegetation.
 - The percentage of HGVs on the route, which may block visibility to the nearside sign.

This list is not exhaustive.

The risk assessment should follow a standard format; headings such as Risk/Issue, Occurrence, Severity, and Mitigation should be used in developing the most effective signing arrangement for each site.

- 4.3 Visibility requirements to speed limit terminal signs are set out in Chapter 3 of the Traffic Signs Manual. Where site conditions meet the visibility requirements to a single sign, consideration should be given to using the layout shown in Appendix 1 or 2, with a single near-side 20mph terminal VMS.
- 4.4 A review of the existing signing shall be included in the development of all part-time 20mph speed limits. Sign faces to TSRGD Diagram 545 or 546 shall be limited to one on each trunk road approach to the school. To limit sign clutter, existing flashing amber signals on the trunk road approach to a school shall be removed when a part time 20mph speed limit, in line with the layouts in the Appendices to this document, is implemented.
- 4.5 Designers shall consider issues of parking, and enforcement of School Keep Clear markings (in line with the TSRGD), particularly where the Welsh Government has received concerns regarding parking. The Welsh Government shall make available copies of correspondence and pupil questionnaire results to the Trunk Road Agent for use in scheme design.
- 4.6 Flashing amber signals to TSRGD diag. 4004 shall not be used in conjunction with signs to TSRGD diag. 545 or 546 as part of schemes covered by this guidance.

5 Enforcement

- 5.1 The importance of enforcement at the time of the Order coming into force, and ongoing, is well documented through the experiences elsewhere in the UK. Go Safe (Wales Road Casualty Reduction Partnership) have an enforcement strategy that all limits are enforceable and there are 'no enforcement free' areas, i.e. including 20mph speed limits. Both mobile enforcement and average speed enforcement would be appropriate for use outside schools.
- 5.2 Enforcement will need to be agreed with Go Safe once the lengths and operating times of limits are known. For mobile enforcement Go Safe need a suitable off road parking location with a clear line of sight, typically within the speed limit being enforced. Length and operating times shall be established based on risk assessment.
- 5.3 The technical requirements for Average Speed Enforcement to be implemented over a short part-time speed limit such as outlined in this guidance are still being investigated. Specific requirements for the signing arrangement will be reflected in a future revision to this document, as appropriate.
- 5.4 The signing requirements for sites where enforcement takes place are outlined in Go Safe Site Criteria document⁸.

6 Technical details

This document is designed to set guidelines to work within when designing part-time 20mph speed limits outside schools. The technical requirements for Variable Message Signs is included in the following paragraphs.

6.1 Capturing data

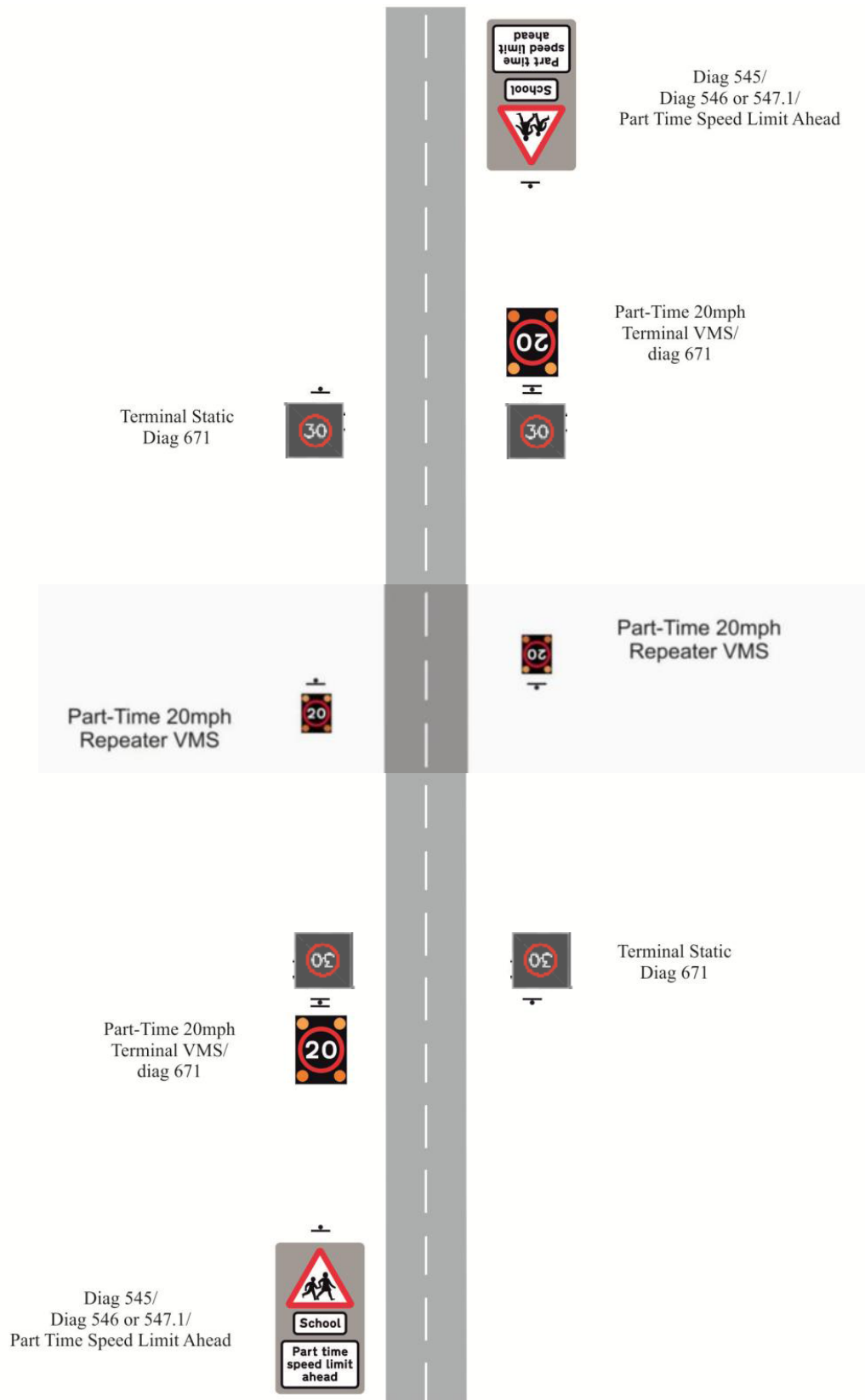
In order to monitor the effect of and compliance with the part-time speed limit, the VMS should have the ability to capture 24hr, 7 day speed data within the restricted area. Welsh Government will use this data to monitor the need for enforcement, and it should be in a format that can be shared with Go Safe. The following table shows the data that shall be collated as standard:

Speed Survey Method:			
Date of Survey (From):			
Date of Survey (To:)			
Location of Survey(s)			
Eastings:			
Northings:			
Eastings:			
Northings:			
Location Description:			
Ref Speed Survey:			
Speed Data			
85th%:		Av Speed:	
%> Speed limit +15mph:		Daily traffic vol:	
95th%:		% Over speed limit:	

6.2 VMS activation

All variable message signs as part of each scheme showing the speed limit outside a school shall be activated at the same time.

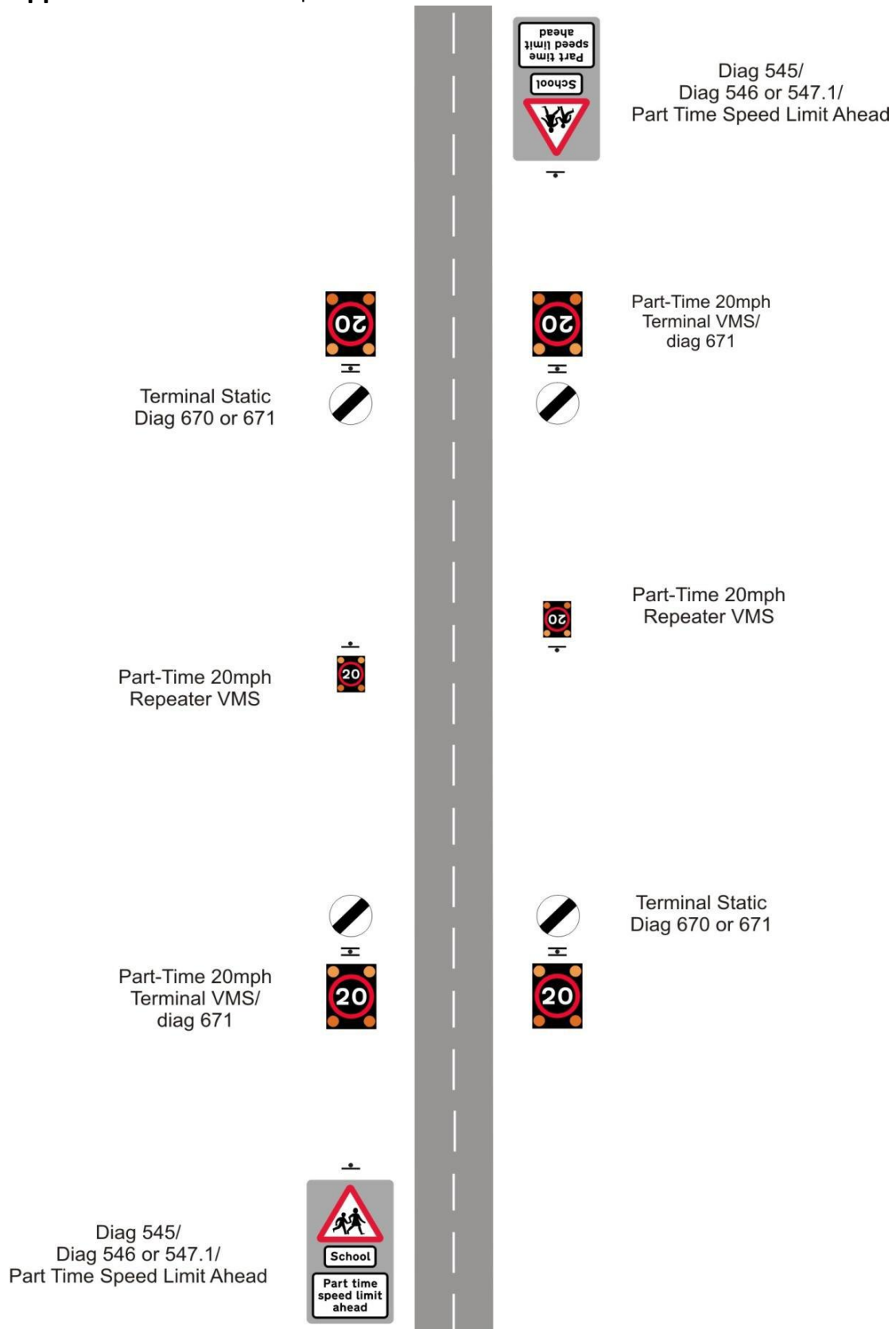
Appendix 1: Part-Time 20mph with terminal VMS on near-side only – 30mph speed limit



Appendix 2: Part-Time 20mph with terminal VMS on near-side only – 40mph, 50mph or national speed limit



Appendix 3: Part-Time 20mph with terminal VMS both sides



References

- 1 'Road Safety at Schools' Policy and Procedure Guide, Transport Northern Ireland, June 2014
- 2 '20mph Part-time Speed Limits – Report on Pilot Studies, Roads Service Northern Ireland, February 2010
- 3 'Trial of Part-Time Speed Limits in Five Scottish Council Areas – Report of Survey', Society of Chief Officers of Transportation in Scotland, October 2003
- 4 'Trial of Part-Time Speed Limits in Five Scottish Council Areas – Final Report', Society of Chief Officers of Transportation in Scotland, October 2003
- 5 'Learner Travel Statutory Provision and Operational Guidance', Welsh Government, June 2014
- 6 'Setting Local Speed Limits in Wales' Welsh Government Circular No: 24/2009, October 2009
- 7 'Setting Local Speed Limits' Department for Transport Circular 01/2013, January 2013
- 8 'Safety Camera Enforcement Site Criteria and Site Management Policy', Wales Road Casualty Reduction Partnership, 2014