

Chapter 8 (2009) - Summary of key changes

(Some sections and paragraphs in the revised edition have been renumbered to take account of new sections and paragraphs; section numbers below refer to the revised numbers.)

Part 1: Design

Key changes	
Section D3 – Design Criteria	
Section D3.2 - Safety clearances	The text now deals in a more structured way with safety clearances, first dealing with the clearances required at works on high speed roads followed in turn by those on roads with lower permanent speed limits.
Section D3.7 - Speed control/temporary speed limits	The guidance makes the point that on two-way single carriageway roads, to ensure that the speed limit is enforceable, the signs indicating the end of the speed restriction must be located back to back with those in the other direction that indicate the start of speed restriction.
Section D3.10 - Use of safety barriers	A new paragraph now says that where a temporary vehicle restraint safety barrier is provided, the temporary road markings or studs used adjacent to the barrier should be to Detail E, F, or H.
Section D3.36 - Other vehicle recovery provision	A new section provides guidance for sites where recovery vehicles are not permanently on site. The guidance now explicitly says that signs advising drivers to use a coned-off area in the event of an emergency must not be used.
Section D5 – Single carriageway roads	
Section D5.12 - Use of chicanes	A new section provides guidance on the use of chicanes, and includes a new plan, Plan CH1.
Section D5.13 - Use of extended all-red period	A new section provides guidance on the use of extended all-red periods with portable signals. A new table gives the likely queue lengths for different traffic flows and all-red durations.
Section D6 – Dual carriageway roads	
Section D6.4 - Contra-flow operation	The guidance has changed so that, subject to a site specific risk assessment, a relaxation case for a single lane crossover is permitted and this enables part-time or short-term contra-flow operation. Following a risk assessment, any existing road markings and studs that traffic overruns in the crossover lane may be retained. If possible, a buffer lane rather than a buffer zone should be used to separate the opposing traffic streams.
Section D6.5 - Crossovers	This section has been expanded and four tables have been added to provide crossover lengths for some commonly used layouts.
Section D6.6 - Changeovers	A new section dealing with changeovers. Two tables are included that give changeover lengths for roads with speed limits of 50mph or more, and less than 50mph.

Section D6.13 - Wider carriageways on motorways	The guidance relating to this topic has been revised and expanded. Guidance that the 'near side only lane closure and signing' technique should be considered in certain circumstances has been introduced, along with a reference that the MLC and MCC technique may be required to set out and remove traffic management on wider carriageways.
Section D6.14 - Static traffic management, and following sections	Dual carriageway road types have been changed so that the key factor is the permanent speed limit of the road rather than whether or not a hard shoulder is present.
Section D6.18 - Works zone	There is no longer a requirement to repeat 610 signs at 400m intervals throughout the work zone. The guidance now says that if a section of the works zone is used purely for access then consideration should be given to placing a "keep left/right" sign (610) on the approach to any works area located after the access. The designer shall assess if additional 610 signs are needed where specific risks in the works zone or changes in road geometry would justify additional guidance to road users.
Section D6.20 - Carriageway closure & Section D6.21 - Slip road closure	These new sections provide guidance on the closure of dual carriageway roads and slip roads; principles and plans are included.

Part 2: Operations

Key changes	
Section O3 – Operational issues	
Section O3.2 - Safety clearances	The text now deals in a more structured way with safety clearances, first dealing with the clearances required at works on high speed roads followed in turn by those on roads with lower permanent speed limits.
Section O3.27 - Works near tramways	This is a new section containing guidance on works located near tramways.
Section O4 – Signing and road marking issues	
Section O4.7 - Warning lights (road danger lamps)	The term "road danger lamp" has been changed to "warning light" in this section and throughout the document. "Beacons", other than those that are vehicle mounted, have been changed to "high intensity flashing warning lights" throughout the document.
Section O4.11 - Use of barriers	Guidance has been added relating to markings adjacent to temporary barriers; where a temporary vehicle restraint safety barrier is provided, the temporary road markings or studs used adjacent to the barrier should be to Detail E, F, or H.
Section O5 - General vehicle issues	
Section O5.2 - Conspicuity	The guidance has been amended slightly. The text now says: "Any vehicle engaged in works on the highway not in an established works zone should be of a conspicuous colour."

Section 6 – Workforce issues	
Section O6.3 - Personal Protective Equipment (PPE)	The text now says that high visibility warning clothing "must" be worn, rather than "should" be worn.
Section 7 – Incident management	
Section O7.1 - Emergencies	The guidance in this section now applies to all roads on the highway network.
Section O7.4 - Other vehicle recovery provision	A new section which deals with the recovery of vehicles when recovery vehicles are not permanently on site.
Section 8 – Single vehicle works and inspection stops	
Section O8.1 - Single vehicle works	<p>New text that makes reference to the small light arrow sign has been added. An authorised small light arrow sign may now be used on works vehicles as a substitute for a sign to diagram 610 and for the sign to diagram 7403. Details of which signs are authorised for use in this manner, and the limitations on their use as a substitute for the sign to diagram 7403, should be confirmed with the Overseeing Organisation. Where the traffic authority has carried out a risk assessment and determined that using the small light arrow sign on a road subject to a maximum speed limit above 40mph will not compromise safety, they may apply for special authorisation to do so.</p> <p>Also, Plan SVW3 has been replaced with a plan for single vehicle works on dual carriageways with a permanent speed limit of 40mph or less. Plan SVW4 has been deleted.</p>
Section O8.3 - Inspection stops	The guidance has been expanded to refer to stops of durations from less than 15 minutes to more than 90 minutes. Reference is also made to a guidance document on hard shoulder working that is available on the www.standardsforhighways.co.uk website and to guidance for Northern Ireland.
Section O8.4 - Road (highway) maintenance inspections/ operations	A new section which provides guidance for slow moving continuous operations such as highway maintenance inspections, road testing and white lining operations.
Section O10 – Mobile Lane Closure technique	
Section O10.8 - Light arrow system for block vehicles	<p>Light arrow sign: For the lower sign display board the guidance now says that retroreflective yellow in the same material as for MLC sign diagram 7403 should be used - previously it said that the lower panel should be non-reflective yellow.</p> <p>A new paragraph permits the use of non-reflective yellow boards in use before 1 April 2009 to continue to be used until 31st March 2011. Another new paragraph states that, subject to special signs authorisation, four flashing amber lanterns may be fitted to the lower panel of the light arrow system for block vehicles.</p>

Chapter 8 (2009) - Summary of other changes

(Some sections and paragraphs in the revised edition have been renumbered to take account of new sections and paragraphs; section numbers below refer to the revised numbers.)

Part 1: Design

Other changes	
Section D3 – Design criteria	
Section D3.7 - Speed control/temporary speed limits	<p>The guidance now says that temporary speed limits should generally be imposed 50m in advance of the first sign at road works indicating a restriction or lane closure, e.g. on a single carriageway, the “road narrows ahead” sign to diagram 517.</p> <p>Table 3.4 and the accompanying notes that refer to temporary speed limit signs have been amended. The road types have been amended so that they now refer to the permanent speed limit of the road. The recommended maximum spacing of speed limit repeater signs has also been amended.</p>
Section D3.12 - Warning lights (road danger lamps)	<p>The guidance now says that sequentially flashing warning lights should not be used when a lane or lanes are narrowed, nor at a changeover or a crossover.</p> <p>It also says that where these lights are in use, high intensity flashing warning lights should not be used on barriers to diagram 7105 within the taper.</p> <p>The lights have now been authorised for use on the motorway and trunk road network.</p>
Section D3.15 - Diversions/road closures	<p>Guidance has been added to say that Chapter 8 signing may still be needed within a closed section of a highway or road as there are likely to be exemptions to the closure order, e.g. emergency services, frontagers requiring vehicular access, pedestrians.</p>
Section D3.26 - Traffic surveys	<p>Plans and principles relating to traffic surveys on dual carriageway roads have been removed; these will be included in a revised version of the Departmental Advice Note TA11.</p>
Section D3.30 - Road markings	<p>This section has been rewritten following input from the Road Safety Markings Association.</p> <p>Plan RM1 (previously named Figure 3.5), which shows single carriageway line painting, has been modified. The feeder vehicle is no longer shown in the centre of the carriageway and is now located a minimum of 20m downstream from the last sign in the works area. Also, a sign to diagram 7010.1 "WORK IN CENTRE OF ROAD" has been added on the approach to the works.</p>

Section D3.31 - Inspection stops	The text on inspection stops lasting less than 90 minutes has been revised and reference is made to the document "Guidance for works on the hard shoulder and road side verges on high speed dual carriageways" which is available on the website www.standardsforhighways.co.uk . This document is not valid in Northern Ireland, so guidance on inspection stops in Northern Ireland is included in Appendix A4 of Part 1: Design.
Section D3.32 - Non-motorised road users	The guidance has been changed to say that footway ramps <i>must</i> be provided.
Section 4 – Signing principles	
Section D4.15 - Additional signs	The guidance relating to the use of speed enforcement camera signing has been revised.
Section 5 – Single carriageway roads	
Section D5.4 - Traffic control	Table 5.3, which gives the dimensions shown on single carriageway plans for different permanent speed limits, has been revised.
Section D5.5 - Two way traffic	Within the principles for advance signing, the text now says a distance plate (572) is required for roads with a permanent speed limit of 50mph or more rather than 40mph or more.
Section D5.8 - "STOP/GO" boards	The guidance now says that the use of remotely controlled "STOP/GO" signs should be restricted to daylight hours.
Section D5.18 - Emergency access through works	A new section on emergency access through works has been added.
Section 6 – Dual carriageway roads	
Section D6.17 - Lead-in zone & Section D6.19 - End-of-works zone	<p>The principles for coning of crossovers on high speed roads have been standardised. The guidance is now that coning to Detail E is used on the facing side with coning to Detail F on the opposite side.</p> <p>Relaxations may now apply for single-lane crossovers. For relaxation works the guidance is now that coning to Detail B is used on the facing side and coning to Detail C1 on the opposite side.</p> <p>The guidance has been amended so that now, for changeovers and crossovers, a 7105 barrier and 610 sign is required at the end of each lane crossed, rather than every 50m along the length of each lane crossed.</p>

Part 2: Operations

Other changes	
Section O3 – Operational issues	
Section O3.6 - Installation of static traffic management	A new paragraph has been added which states that the inspection shall include a drive through or visual inspection, as appropriate, to gain the drivers' perspective and ensure that signs are not obscured, legends are readable, and manoeuvres are safe. It is recommended that the inspection is formally recorded to provide evidence of the adequacy of the traffic management in the event of an incident.
Section O3.10 - Adverse weather conditions	A new paragraph has been added, which states that traffic management operatives and contractors should be aware of the effects of adverse weather, such as decreased visibility in fog or heavy rain, increased stopping distances, and the reflective glare of sunlight on a wet road surface. It is essential that a risk assessment identifies clearly the hazards associated with adverse weather and that adequate controls are in place. Wherever possible, the traffic management operator should seek agreement with the client regarding the acceptable limits of adverse weather prior to work taking place.
Section O3.13 - Pedestrians	The guidance has been changed to say that footway ramps must be provided.
Section O3.16 – Surface condition	New guidance relating to road plates has been added; this states that the use of road plates may be appropriate to bridge excavations in order to open the carriageway to traffic for example during traffic sensitive periods and should be used following a site specific risk assessment. The plates must be rigidly secured to the road surface and must either be sunk into the surface or suitable bituminastic material used to provide a ramp to plate level. Where a ramp is used, appropriate ramp warning signs should be used.
Section O3.22 - "STOP/GO"	On high-speed single carriageway roads the use of "STOP/GO" signs is not recommended at night.
Section O3.29 - Builders' skips	Spacing of cones guarding the skip has been changed from 1.5m to 1.2m.
Section O4 – Signing and road marking issues	
Section O4.5 - Mounting and siting of signs	A new paragraph has been added which states that the guidance on the mounting of temporary traffic management signing on central barriers, especially concrete barriers, can be found on the HA website at www.highways.gov.uk .
Section O4.6 - Lighting of signs	Signs that do not need to be reflectorised are now listed. Sign material: Reference is now made to BS EN 12899-1:2007 and Classes of material have been changed to RA1 and RA2.

Section O4.7 - Warning lights (road danger lamps)	<p>The guidance now says that consideration shall be given to the use of backlit sequentially flashing warning lights to highlight taper coning in both daylight and darkness.</p> <p>In addition, the use of these lamps shall be restricted to lead-in and intermediate stepped tapers involving a lane drop, and shall not be used when a lane or lanes are narrowed, at a changeover, or a crossover. Where these lamps are in use, high intensity flashing warning lights shall not be used on barriers to diagram 7105 within the taper.</p>
Section O5 – General vehicle issues	
Section O5.2 - Conspicuity	Additional guidance has been included regarding high visibility markings. It now says that where the main body of the vehicle being used is not a recognised conspicuous colour (yellow or white) then the markings should be supplemented by a high visibility fluorescent yellow retroreflective strip, of not less than 50mm wide, along the side of vehicle as a minimum.
Section O5.5 - Temporary traffic management vehicle specifications	The note referring to the light arrow sign has been amended; The light arrow sign shall not display any form of arrow when on a two-way single carriageway road and, <i>other than at the scene of an incident</i> , the light arrow sign shall not display any form of arrow when on a hard shoulder of a dual carriageway.
Section O7 – Incident management	
Section O7.2 - Emergency traffic management	<p>The following guidance has been added regarding the use of the light arrow sign with ETM; "The light arrow sign may continue to be used until the ETM closure is complete at which time it should move into the live lane."</p> <p>The sentence "The light arrow sign shall not display any form of arrow when on the hard shoulder of a dual carriageway or when on a two-way single carriageway road." has been removed.</p>
Section O8 – Single vehicle works and inspection stops	
Section O8.1 - Single vehicle works	<ol style="list-style-type: none"> 1) The guidance now says that single vehicle works should <i>normally</i> only be carried out on the near side lane of a carriageway. 2) Also, on roads where the speed limit is 40mph or more, if practical and appropriate and subject to a risk assessment, <i>consideration</i> should be given to fitting a lorry-mounted crash cushion (LMCC) to the working vehicle and/or any escort vehicle that may be employed. Previously, the guidance was that the fitting of a LMCC was recommended. 3) The guidance now says that on roads where the speed limit is 40mph or more, the working vehicle shall carry a sign to diagram 7403 on the rear. If an escort vehicle carrying a sign to diagram 7403 is provided, the sign on the works vehicle can be to either diagram 610 or 7403 but on single carriageway roads the use of the sign to diagram 610 on the works vehicle is the preferred option as this will help retain forward visibility past the works vehicle. Previously, the guidance was that on roads with a speed limit of 40mph or more, the working vehicle may display a 610 sign when escorted by a vehicle carrying a 7403 sign.

Section O8.1 - Single vehicle works (continued)	<p>4) New guidance has been added: the standard light arrow sign may be used to replace the sign to diagram 7403 on either vehicle. Note that the light arrow element of this sign shall not be used on two-way single carriageway roads.</p> <p>5) New guidance has been added; the standard light arrow sign may be used to replace the sign to diagram 7403 on either the working vehicle or the escort vehicle. Note that the light arrow element of this sign shall not be used on two-way single carriageway roads.</p>
Section O10 – Mobile Lane Closure technique	
Section O10	Guidance on the use of the light arrow sign has been amended. It now states that the light arrow sign shall not display any form of arrow when on a two-way single carriageway road and, <i>other than at the scene of an incident</i> , the light arrow sign shall not display any form of arrow when on a hard shoulder of a dual carriageway.
Section O10.2 - Planning	New guidance is given that it is anticipated that the maximum time that a MLC vehicle should be planned to remain stationary is fifteen minutes. If the MLC vehicle is still in place when the planned stop time has elapsed, a dynamic risk assessment should be carried out immediately in order to determine the next course of action. If this risk assessment results in a decision to continue with the MLC operation, an absolute maximum additional 15 minutes should be allowed.
Section O10.14 - During a closure	Amended guidance states that where there is no hard shoulder, or the hard shoulder is of restricted width, if, in extreme circumstances, suitable stopping points are not available for all three advance warning vehicles then Vehicle D may be omitted. This decision should be based on a site specific risk assessment. Vehicle D should always be used unless there are very sound reasons not to do so.
Section O10.19 - Plans and principles for Mobile Lane Closures	Plan MLC4 - working on foot using a MLC; four advance mobile sign vehicles are now required instead of three.
Section O11 – Mobile Carriageway Closure technique	
Section O11.7 Signing	For the carriageway closure and slip road closure vehicle signs, the guidance now says that the lower panel should be reflectorised using the same material as the sign to diagram 7403.
Section O11.23 - Use of the technique to set up traffic management	This is a new section which gives guidance on the use of the Mobile Carriageway Closure technique to set up temporary traffic management.