



Leicestershire County Council

DEPARTMENT OF ENVIRONMENT AND TRANSPORT

Code of Practice for the use of Temporary/ Portable Traffic Signals on the Highway

(Issue 15 January 1996)

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'Temporary Traffic Signals' within the revised 'Traffic Signs Regulations and General Directions 2002 (SI 2002 No. 3113)

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i) Introduction

Any work on the highway creates difficulties for drivers and pedestrians. These difficulties are exacerbated if the works are on Traffic Sensitive Roads or in busy shopping areas and other places with heavy vehicle and pedestrian activity at specific times such as outside schools.

These problems can be reduced, even with unplanned work, if consideration is given to road users; consultation takes place with the appropriate road network supervisor, and communicating with the Police and Media.

The purpose of this Code of Practice is to attempt to bring together for Work Programmers and Supervisors the various publications on the use of temporary/portable traffic signals on the highway, and to provide information as to the specific requirements for using such equipment on Leicestershire's roads.

Assistance is always on hand as to the most appropriate form of traffic control, and the Contractor/Statutory Undertaker should contact the Highway Authority/Highway Agent Authority before work commences to obtain the best advice. The appropriate telephone numbers are shown on page 11.

ii) Definitions

ATC	<i>Area Traffic Control (Leicester City Council)</i>
BS	<i>British Standard</i>
County Roads	<i>Roads controlled by Leicestershire County Council</i>
Divisional Offices	<i>Divisional Surveyors Offices branches of the Department of Environment and Transport, Leicestershire County Council</i>
Emergency Works	<i>As defined by the New Roads and Street Works Act 1991</i>
Highway Authority	<i>Leicestershire County Council for County Roads, Department of Transport's Highway Agency for Trunk Roads and Leicester City Council (ATC) for City Roads</i>
IEE	<i>Institute of Electrical Engineers</i>
LCC	<i>Leicestershire County Council</i>
Multi-Phase	<i>Three or four way temporary signals</i>
NRSWA	<i>New Roads and Street Works Act 1991</i>
Shuttle Working	<i>Two way temporary signals</i>
Statutory Undertaker	<i>As defined by the New Roads and Street Works Act 1991</i>
TIS	<i>The County Council's Traffic Information Service within ATC</i>
Traffic Sensitive Roads	<i>Roads deemed sensitive for streetwork purposes under NRSWA</i>
Trunk Roads	<i>Roads controlled by the Highways Agency.</i>
TSS	<i>Traffic Signals Section, Highways Design, County Hall, Glenfield</i>
T/PTS	<i>Temporary/Portable Traffic Signals</i>
Urgent Works	<i>As defined by the New Roads and Street Works Act 1991</i>
V/A	<i>Vehicle Actuation Detection (radar)</i>

1. Preamble

The layout and mode of operation of temporary/portable traffic signals shall comply with the following: -

(a) Department of Transport Specifications

- (i) MCE 0111 - "Portable Traffic Signal Equipment for use at Road Works"
- (ii) MCE 0114 - "Microwave Vehicle Detecting Equipment"
- (iii) MCE 0100 - "Inductive Loop detection equipment" (if appropriate).
- (iv) MCE 0108(B) - "Siting of inductive loop detection equipment"

(b) Department of Transport Publications

- (i) Chapter 8 of the Current Traffic Signs Manual
- (ii) Safety at Street Works & Road Works
- (iii) Safer Road Works Ahead

(c) Other Publications and Legislation

- (i) Traffic Signs Regulations and General Directions 2002 (SI 2002 No. 3113)
- (ii) BS505: 1971 Road Traffic Signals
- (iii) The "Code of Practice for Portable Light Signals Control of Vehicular Traffic" issued by the Association of Road Traffic Signs Makers.
- (iv) New Road and Street Works Act 1991
- (v) Current IEE Regulations
- (vi) Leicestershire County Council "Code of Practice for the use of Temporary Signals"
- (vii) Leicestershire County Council "Code of Practice for Haul Route Crossings"
- (viii) County Surveyors Society/Department of Transport "Safety at Roadwork's" joint Working Party 1994

2. Notification

- Notification notices under the NRSWA procedure are to be forward to the relevant Divisional Office (see appendices for **Plans of Divisional Office Areas & Telephone Numbers**). This is to be undertaken prior to the use of temporary/portable traffic signals on **any road** in Leicestershire to ensure that proper co-ordination of works and road-booking space occurs.
- In the case of any **Emergency Works** or **Urgent Works** requiring the use of temporary/portable signals the Highway Authority must be notified as soon as possible. Also, to reduce traffic delays at such works, particularly on Traffic Sensitive Roads, the Contractor/Statutory Undertaker should inform the County Council's Traffic Information Service (0116 299 5656) of any such works for inclusion on traffic broadcasts and forwarding to the media.
- '**Shuttle Working**' (2-way signals) notifications are to be verified by LCC Divisional Offices.
- '**Trunk Road**' notifications are verified by the relevant **Highways Agency**

3. Approval

It is a **Statutory Requirement** that all **Multi-Phased** temporary/portable traffic signals on any road in Leicestershire, has written approval from the Highway Authority before work commences.

LCC Divisional Offices give 'Multi-Phased' approvals after verification by LCC Traffic Signals Section (TSS) based on applicant's submitted O.S. plan 1:1250 scale indicating the working area and traffic control arrangements as listed below in paragraph 3.1.

3.1 The applicant will be required to submit a **LCC 'Application for the use of Temporary/Portable Traffic Signals'** (see appendices for a copy of this form). They should also provide an O.S. plan at 1:1250 scale showing the following information: -

- i) Location of site and proposed working area
- ii) Positions of signals and stop boards/stop lines
- iii) Any alterations of existing road markings or additional traffic management measures
- iv) Proposed phasing and timing of the signals when **"24-hour working"** is required at traffic sensitive major junctions especially with permanent existing signals. **An additional O.S. plan 1:500 scale** is required detailing specific signal requirements such as **"Double Heads"** (See pages 8/9 for further information).

Approval of temporary/portable signals is dependent on the above information being submitted by the applicant. Delays in approvals will occur if the information required is incomplete. If the applicant cannot provide this information then the TSS can assist them in the provision of the relevant information or if requested provide a design. This assistance/design work will incur costs, which would have to be paid by the applicant.

3.2 The Division Offices should then forward requests for Multi-Phased signals (including applicant's O.S. plans indicating working area and traffic control arrangements as listed above in paragraph 3.1) on to the TSS based at County Hall, Glenfield for verification. TSS should then return these applications to the Divisional Offices for final approval.

3.3 **Ten working days notice** will be required by the TSS for temporary/portable signals at a junction on a County Road. This is irrespective of whether or not the side road is signalled.

4. Work at or adjacent to Railway Level Crossings

- If any work needs to be undertaken at or near a railway level crossing (including mineral lines) advice must be sought from the appropriate railway authority, railway police or owning company.
- In the case of out of hours Emergency or Urgent Works consultation should be with the Railway Police.
- Under no circumstances shall temporary/portable traffic signals be used at works, which straddle a railway level crossing, nor to control road traffic within 50 metres of a level crossing equipped with twin red light traffic signals ('wig/wags').
- Due to the volume of road traffic, the use of temporary/portable traffic signals used elsewhere may cause road traffic to block back to a railway level crossing. In these situations consultation should be undertaken with all relevant parties well in advance of the start of work, so that appropriate arrangements can be made.
- **In all situations regarding railway level crossings reference to the relevant sections in Chapter 8 must be implemented.**

5. Mode of Operation for Controller

The signal controller shall be set in the **vehicle actuated** (V/A) mode at all times; fixed time mode will not be permitted unless it has been authorised in **writing** by the Highway Authority. Manual mode of operation may only be permitted at a site when **instructed** by the Highway Authority.

6. Vehicle Detection

Vehicle actuated microwave (radar) detection will be used at all sites, unless directed by the Highway Authority. In addition, in some circumstances inductive loops may be required instead at the direction of the Highway Authority.

7. Site Layout and General Signing

- At “**shuttle working**” sites on **County Roads** the primary signal head, shall where possible, be located on the near side to traffic on the approach to the roadwork’s.
- At junctions to be controlled with temporary “**Multi-Phase**” signals, “**Double Heads**” may need to be provided. Further information regarding “**Double Heads**” can be found on pages 8/9.
- Where stop lines are not being used, signs indicating “when red light shows - wait here” shall be located not less than 5m and not more than 10m in advance of the primary signal head.
- Any traffic sign mentioned in this specification, or additional signs installed at the direction of the Highway Authority, shall be in addition to those signs required by current Chapter 8 of the current “Traffic Signs Manual.”

8. Cable Crossings for old generator powered heads

- All cables across the carriageway/footway shall be suitably protected with Department of Transport approved cable protectors and measures taken to ensure that the cables and protectors are held in place at all times to prevent dangers to all road users.
- In certain cases (see appendices regarding “**Temporary/Portable Traffic Signal Requirements for 24-Hour Working**”) the Highway Authority may require cables to be placed in slots cut into the carriageway by a specialist contractor approved by the Highways Authority. In addition, an appropriate reinstatement (with approved materials) shall be undertaken **when the cables are removed**.
- The Statutory Undertaker/Contractor must seek approval from the Highway Authority before commencing any slot cutting.

9. Tripods, Signal Head Supports & Traffic Management

- The Contractor shall ensure that at all times that if tripods are being used for signal and radar head support and the appropriate ancillary signs shall be safe and secure for all highway users and measures taken to ensure that they cannot be moved due to wind and passing traffic. Sandbags or similar will be permitted, **however materials such as kerbs, concrete, pipes, wood or other similar objects will NOT be permitted**.
- Due to the nature of some sites and traffic volumes, additional traffic management measures

may be required at the direction of the Highway Authority and at the expense of the Statutory Undertaker/Contractor

- At such sites, all signs and signals may require mounting on semi-permanent/permanent pole (see appendices regarding “**Temporary/Portable Traffic Signal Requirements for 24-Hour Working**”).

10. Equipment Faults

- All equipment shall display the name of the hirer/owner and an emergency call-out telephone number. (In the case of traffic signs this shall be on the rear face and not on the front face).
- The Contractor or Statutory Undertaker shall ensure that all faults to the signal equipment are corrected and/or replaced within two hours of the fault being reported to them.
- The Highway Authority or the Police reserve the right to call out the hirer and/or owner, of the signal equipment in the event of a fault being detected/reported, to enable appropriate action to be taken whilst the Contractor or Statutory Undertaker is absent from site.
- ‘Stop and Go’ boards must be available on site at all times for use by the Police or Highway’s staff for use in the event of a fault.

11. Sign Specification

- Only traffic signs manufactured to Department of Transport Specifications will be approved.
- All signs erected shall be of the size, colour and type prescribed or authorised by the Secretary of State. No other wording shall appear on the sign face
- The sign facing material shall conform to the requirements of the current ‘Traffic Signs Manual’ and to the Traffic Sign Regulations and General Directions 2002.
- On occasions roadwork signs may require to be illuminated. Illumination shall be from a permanent electrical supply (*see also Section 7*) or battery powered. Because of the danger to the travelling public, illumination from a portable gas supply will not be permitted.
- No existing traffic sign face shall be covered with tape or any other type of adhesive material, due to the damage caused to the sign face. If the existing sign face has to be covered then consideration must be given to its removal and replacing with a temporary sign, or ‘bagged off’.
- If an existing traffic sign is ‘bagged off’ it should be undertaken in such a manner so not to damage the facing material, create any confusion to the travelling public, and to ensure its security against vandalism and wind damage.

12. Carriageway Markings

- At the direction of the Highway Authority, amendments to the existing carriageway markings may be required.
- Carriageway marking material shall be of a suitable temporary nature approved by the Department of Transport to the satisfaction of the Highway Authority and agreed prior to the commencement of works on site.
- Carriageway markings shall conform to Chapters 5 and 9 of the current edition of the “Traffic

Signs Manual” and prescribed by the “Traffic Sign Regulations and General Directions, 2002”, or any subsequent documents.

- Unless directed by the Highway Authority no existing carriageway markings shall be permanently removed.

13. Appendices

1. Temporary/Portable Traffic Signal Requirements for 24 Hour Working (page 9)
2. Temporary/Portable Traffic Signal Requirements for Non 24 Hour Working (page 10)
3. Telephone Numbers (page 11)
4. Copy LCC’s Application form for the use of Temporary/Portable Traffic Signals (page 12/13)

Temporary/Portable Traffic Signal Requirements for 24 Hour Working

At Traffic Sensitive/Major Road Junctions with/without Existing Traffic Signals

1. Signal heads (see note A below for further information).
2. Double heads on each approach acting as primary/secondary signals (see note B/C below for further information).
3. An electrical supply to the controller (connections can be made from street lighting columns)
4. All existing signals are to be bagged and then switched off (including any signalised crossing within 100 metres of works) by an authorised person
5. Cables are to be slot cut into existing surfaces both on the carriageway and footway and reinstated accordingly after removal of signals
6. Advance of works 'Pre-start signs' are to be placed out on each approach to warn road users that delays are possible 7 days prior to start date. The signs should also indicate the start date, time length of works and a contact number.
7. Signing and guarding as per Chapter 8 Traffic Signs Manual
8. Manual control of the signals during peak times to ensure traffic flows

Note

- A. Basic temporary/portable traffic signals (signal heads mounted on tripods) can be used up to 5 working days (not to include non-working weekend). In all other cases 505 signals on grey signal poles attached to steel base plates are to be used which when used on permanently signal sites will mirror the existing signal head equipment.
- B. The placing of these signals is dependent on site conditions. In most cases both signals can be placed on the same side of the carriageway. In cases of high-speed roads and poor approach visibility then signals should be placed on both sides of the carriageway.
- C. Temporary/portable signals at permanent signal sites with single lane approaches generally have both signal heads on the same side of the carriageway. On two or more lane approaches the temporary signals should mirror all the primary signals which may need to be sited on the near side, on refuse islands or on the opposite side of the carriageway.

At Non Traffic Sensitive/Minor Rd Junctions without Existing Traffic Signals

1. Signal heads can be mounted on tripods
2. Double heads on each approach acting as primary/secondary signals (see note B above for further information).
3. An electrical supply to the controller (connections can be made from a street light columns)
4. Existing signals within 100 metres of works are to be incorporated into the working area, bagged and then switched off by an authorised person. If these signals are a pedestrian type then they can be left out of the working area but must be bagged and switched off accordingly.
5. Cables are to be slot cut into existing surfaces both on the carriageway and footway and reinstated accordingly after removal of signals
6. Signing and guarding as per Chapter 8 Traffic Signs Manual

Note

Exceptions can be made to all the above requirements depending on site conditions and other unforeseen circumstances (seek advice from the Highway Authority).

Temporary/Portable Traffic Signal Requirements for Non 24 Hour/Off Peak working

At Traffic Sensitive/Major Road Junctions with/without Existing Traffic Signals

1. Signal heads can be mounted on tripods
2. Double heads on each approach **may be required** in certain circumstances as highlighted in note A on page 8 “Requirements for 24-hour working” to act as primary/secondary signals
3. Existing signals are to be switched off (including any signalised crossing within 100 metres of works) by an authorised person
4. Signing/guarding as per Chapter 8 Traffic Signs Manual

At Non Traffic Sensitive/Minor Road Junctions without Traffic Signals

1. Signal heads can be mounted on tripods
2. Existing signals within 100 metres of works are to be incorporated into the working area, switched off by an authorised person. If these signals are a pedestrian type then they can be left out of the working area but must be switched off by an authorised person
3. Signing/guarding as per Chapter 8 Traffic Signs Manual