Site Operatives and Manual Control

RAMS024-CEN

Document Owner (QHSE Manager)	Steve Usher	
Checked & Approved (Technical Manager)	Phil Thompson	
Approved for Use	27/01/2026	

Issue Date	27/01/2026
Next Review Date	31/12/2026

Version	Date	Name	Details
1	23/01/2026	Phil Thompson	New draft

Note Under no circumstances is this document to be modified in any way without the QHSE Managers consent. Uncontrolled when Printed or Downloaded

1 Document Summary

1.1 This generic RAMS document covers static operatives on sites for maintenance purposes and the use of site operatives for the manual control of temporary traffic signals.

1.2 This document can run alongside other traffic management RAMS and MUST be used when required.

1.3 This document has been put together using guidelines set out in the following documents.

- Safety at Street Works and Road Works
- Traffic Signs Manual Chapter 8 Part 1 2009
- National Highways Sector Schemes 12D

1.4 It applies to all highways and roads, except motorways and any dual carriageways, with a speed limit of 50 mph or more. This Code applies to works carried out by or on behalf of both highway authorities and statutory undertakers.

1.5 The required intervals at which static traffic management is to be maintained will be specified in the design. The Project Manager or/and Supervisor should make the resources available to carry out the checks/maintenance and should carry out a risk assessment and produce a method statement for the maintenance operation.

1.6 Project Manager/Supervisor should be aware that the amount of work associated with maintenance of any particular layout may vary throughout the duration of a scheme due to variations in things like volume of traffic and weather. The Project Managers/Supervisor shall ensure that he provides sufficient resources at all times to maintain the layout in a safe condition.

1.7 In most cases, portable signals should be vehicle actuated. Manual control of the signals should only be used to stop traffic if the shuttle lane has to be occupied for short periods (e.g., for unloading), or in other permitted circumstances.

1.8 No works are to be installed without the relevant licences and approvals in place.

1.9 A Task Briefing will be given for all works, detailing any site-specific information relevant to the specific works being undertaken.

1.10 If any risks, operational or environmental, are identified when carrying out the on site-specific risk assessment that compromises safety you **MUST** inform the Contract Manager immediately and prior to the deployment of any traffic management equipment.

1.11 If at any point throughout your work, you encounter an unsafe situation you **MUST** stop work and contact your manager or supervisor immediately for guidance.

1.12 All Incidents, Collisions, Near Misses and Accidents are to be reported through the Notify IM app immediately.

1.13 All Incidents, Collisions, Near Misses and Accidents are to be reported directly to the client.

1.14 This method statement is to be read in conjunction with RAMS Appendix A (Standard Clauses)

1.15 RAMS Appendix A (Standard Clauses) is to be attached / sent along with this method statement.

Note Any deviation from these RAMS or any linked documents mentioned below, must be agreed with the QHSE Manager.

2 Training

2.1 TM Operatives working under this method statement must have undergone suitable training and competency assessments to satisfy the requirements of the nationally recognised standard.

- NHSS 12D M1/M2 or M5

3 Vehicle

3.1 At a minimum, a traffic management maintenance/inspection or installation vehicle will be used in accordance with Chapter 8 Traffic Signs Manual.

- Conspicuous colour
- Reflective Markings (Chevrons on the rear of the vehicle)
- Roof mounted 360 beacon + rear strobe LED's
- "HIGHWAY MAINTENANCE" SIGN
- High visibility fluorescent yellow retroreflective strip alongside of the vehicle
- Company Livery
- Work lights
- Reverse Bleeper

3.2 A full digital check shall be carried out and recorded prior to leaving the yard, depot or at the shift changeover point. Any defects are to be reported accordingly.

3.3 The vehicles shall be loaded to ensure the equipment is secure and in such a manner so as to enable safe unloading in the correct order on site.

3.4 All drivers are to have driving licences checked on a regular basis (usually, every 6 months) prior to commencing any work, with a record being kept with the employee's HR Department and made available at request by main client.

3.5 All vehicles should carry a fire extinguisher for minor incidents. Major incidents would require the assistance of the fire service (contactable on 999 or 112 emergency calls only) other means of communication on site will be via a mobile phone, but, not during the installation of any TM equipment.

4 Personal Protective Equipment (PPE)

4.1 Minimum requirements on site for these RAMS for all personnel are:

Hard Hat	Eye Protection	Hi-Vis Clothing	Safety Gloves	Safety Boots
				
Colour dependent on role, with 4-point chin strap that meet EN397 & EN12 492 standards.	Safety glasses or goggles	Long sleeve Hi-Vis Jacket EN 20 471 class 3	Minimum of cut level F	(laced only) metatarsal if required by client / contractor

Head torch to be worn for night working and poor visibility	To be worn for task specific work or when required by client / site	Hi-Vis trousers EN ISO 20 471 class 1		S3 steel toe cap with ankle support

Black	White	Blue
		
SMSTS Managers and SSSTS Supervisors	General use, Managers, Clients and Competent Operatives	Trainee workers and Site visitors

Note The above PPE requirements apply to either Yellow or Orange (this could depend on Client's requirements). PPE is to be clean, fit for purpose and identifiable with the company logo.

5 Product Familiarisation

5.1 Where operations involve users operating equipment for the first time (Traffic Lights/Pedestrian Crossing lights), a Product Familiarisation induction must be completed and signed by the Supervisor and Operator before use.

5.2 Form HS016-CEN-H&S Product Familiarisation Authorisation Form can be located on the Shared Drive in the HS forms folder.

6 Pre-Works

6.1 Prior to leaving the depot the TM Operative(s) MUST ensure the following:

- They have the correct PPE to undertake the works in accordance with the Task Briefing and any client specific requirements.
- They have in their possession their relevant Lantra training record card.
- All the required documentation is available on the Field Service System for the works they are to undertake.
- They understand what is required of them through the Task Briefing, if in doubt they are to speak to their Supervisor/Manager.

Note Depending on the client's requirements the TMO's working on these works maybe required to attend a daily briefing.

- They understand RAMS and other associated documentation for the works.
- Completed, Vehicle Daily Walk around check.
- Kit is suitable for the works to be undertaken; defected kit is not to be used.

Note The TM Operative is to ensure that the local depot telephone number is clearly visible on the rear of the site signs.

- Kit that is required for the works is as per the traffic management plan and spares.
- Kit is securely loaded on to the vehicle; vehicle must not be overloaded.
- If Automatic Stop/Go is used, then the batteries are charged, and the unit is operating correctly.

7 Arriving On Site

7.1 On arriving on site, the TM Operative MUST

- Park your vehicle in a safe area
- Carry out the on-Site Risk Assessment using the Field Service System
- Take Pre installation Photos – from a safe location.

8 Welfare

8.1 On mobile work sites where welfare facilities are not generally available or where the client does not provide site welfare, sufficient time must be allowed for an operative to seek welfare facilities nearby. Any requirement to leave site should be notified to the site management team and if possible, a relief controller provided when traffic signals and traffic volumes limit the ability to leave the site uncontrolled.

8.2 Any issues relating to the provision or availability of site welfare facilities should be directed to the Project Manager or/and Supervisor.

8.3 Carriageway crossing points should be checked to ensure that there are adequate sight lines to see oncoming traffic.

Note Where an operative needs to access welfare facilities on the opposite side of the road, the second operative must place the lights on all red until the operative has safely arrived at their destination.

9 Active Sites Pre-Works Inspection

9.1 Ensure the site is safe and where applicable any displaced equipment has been reinstated.

9.2 A documented record of all corrected defects must be retained in the Big Change Scheme Job Card.

10 New Installations

10.1 The company produces a wide set of generic method statements for regular repeating type works.

10.2 New installations must be undertaken in accordance with the prescribed RAMS for the scheme.

10.3 Each type of installation has its own generic works RAMS, however where sites require site specific or bespoke installations a separate site-specific RAMS will be provided.

10.4 Where applicable a Task Briefing Sheet (TBS) will be provided, and an appropriate site induction take place.

11 Maintenance During Works (When required)

11.1 Visual site checks will be carried out periodically or at pre-set intervals including full time operator onsite maintenance.

11.2 During the operations, any equipment damaged or blown over will be replaced or stood up when operations move or allow.

11.3 Any equipment that requires cleaning is to be either cleaned or replaced.

11.4 Ensure Stop/Go Boards are available on site as a replacement should the signals fail.

11.5 Operatives must walk the length of the site visually checking and photographing sections of the site as required by the Big Change App Maintenance job card.

11.6 Maintenance inspections must include photographic evidence of the securing T-Bolt and lock nut in place on all installed SRL Folding Pedestrian Signal Heads or CCTV units.

11.7 Operatives are to record the battery voltage level at each signal head and where voltages are getting low, arrange for a battery replacement as soon as possible to avoid failure of the equipment.

11.8 All signs must be standing and appropriate to the scheme. Un-used signs should be removed from site and recorded on the maintenance job card.

11.9 All cones are to have clean and visible reflective sleeves fitted. Replace any damaged or excessively dirty cones.

11.10 All displaced equipment should be returned to safe locations, and this noted on the maintenance sheet noting what was disturbed and returned or replaced.

11.11 A minimum of 1 sandbag is required for each sign installed, the larger of the signs will be weighed down with sufficient numbers of sandbags according to the weather conditions or by fixing to barriers available with rope, sign lock straps or a suitable alternative method. Schemes expected to remain in-situ for extended periods are to have additional ballast added to each sign to prevent collapse during high winds.

Note On certain contracts more sandbags may be required per sign as per requirements stipulated, Operatives are to ensure they secure the signs as requirement.

11.12 Should the signals be in position over a number of days, a schedule will be submitted with required battery changes on the signal heads.

11.13 Pedestrian walkways and safety zones should be checked for safety and a clear walkway of at least 1.2m should be provided through the works. Where pedestrians are required to use a diversion on to the carriageway pedestrian kerb hopper ramps should be in position and secured.

11.14 A pedestrian barrier should be in position which should have a continuous top and bottom tapping rail through the site. The top rail should be 1.1 metres above the ground, and the lower rail should be no higher than 200mm above ground level.

11.15 All issues should be recorded and rectified during the visit.

11.16 If additional items are required to make the site safe, you should contact your Project Manager or/and Supervisor, make them aware of the issue and note the time a resolution to the issue should be completed by.

Note Unresolved issues are NOT to be left incomplete on site.

11.17 Where manual control is undertaken a stock spare of charged batteries will be available on site.

12 Weather

12.1 The Project Manager or/and Supervisor will monitor the weather and where the prediction of severe weather exists.

12.2 Steps maybe be taken to increase the ballast applied to signs or where severe winds are predicted signs can be laid down and secured to prevent them from falling in an uncontrolled manner (when not in use).

12.3 Where a site is to be removed after frost or very cold spells of weather, the contractor should ensure the site is gritted prior to the removal of any traffic management which has occupied a stretch of carriageway that has not been treated in the normal gritting cycles.

12.4 Traffic management should not be removed until the carriageway has been safely treated.

12.5 Care should be taken when walking through untreated sites.

12.6 Snow and Ice should be cleared from sign faces and cones as soon as practically possible.

12.7 Regular snow coverings should be removed with each maintenance inspection.

12.8 LED signal heads produce very little heat and can become covered or obscured by snow, these should also be cleared regularly.

12.9 When visibility of the signs and the works is seriously affected by the onset of adverse weather conditions, it may be appropriate to improve the advance warning by the addition of high intensity flashing warning lights on the approach to the site. These flashing warning lights may only be used where allowed.

13 Contractors Equipment

13.1 Where a contractor is not on site and contractors' own equipment has been displaced or damaged, Operatives are to notify the supervisor and take photographs of the site.

13.2 Displaced equipment should be made safe and tidied up, so it does not pose a risk to pedestrians or road users.

Note Operatives are NOT permitted to enter an excavation or void under any circumstances and where barriers or equipment are displaced into open excavations. Operatives are to make the site safe and contact a supervisor to have the contractor attend site to rectify any items we are unable to correct.

14 Battery Replacement

14.1 Where batteries are to be replaced in signal posts:

- Each unit should have one battery disconnected and replaced at a time.

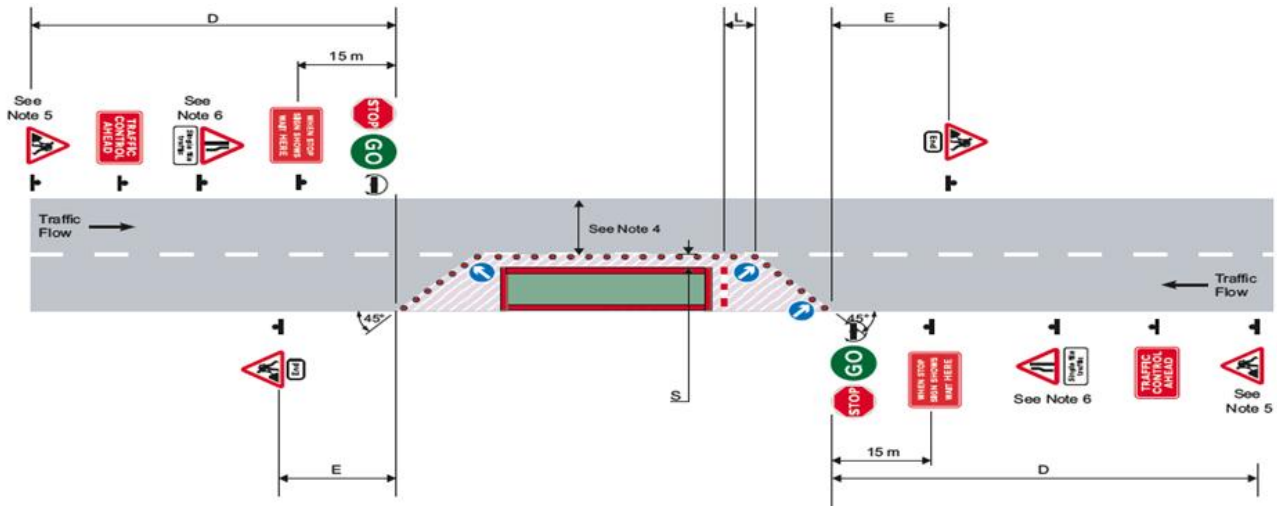
- Where units have 2 or more batteries fitted, only one is to be disconnected whilst the lights are active, then a fresh battery connected before the second or subsequent battery is replaced.
- The operator is to confirm the battery voltage and photograph the display panel as part of the maintenance inspection to record the new voltage on each unit.
- Batteries are not to be left in walkways and to be placed and secured on the rear of the vehicle before moving off

15 Works and Safety Zone

15.1 Particular attention should be made to the security of the work zone and the safety zone surrounding the works.

Note No traffic management vehicles or contractors' vehicles to be parked in the Safety Zones surrounding the works. For the avoidance of doubt these are the areas marked S & L in Fig 1.

Figure 1



15.2 The size of these zones should be equal to or greater than the minimum size stipulated on the inside back cover of The Safety at Street Works and Road Works (A Code of Practice) ACoP **Fig2.**

15.3 The operative should ensure pedestrian walkways are kept free and movement for vulnerable road users is maintained at all times.

15.4 Site fences and barriers are to be checked frequently to ensure the walkways and safety zones are not impeded or compromised.

15.5 Should sufficient parking not be available within the site without entering the safety zone the operative may need to park his vehicle away for the site. When this is required additional welfare facilities and shelter may be required where prolonged periods of manual control are required.

Figure 2

Setting out site

(Distances in metres unless stated otherwise, numbers are minimum numbers)

Type of road	Minimum visibility distance to first sign	D Distance from first sign to start of lead-in taper	Lead-in taper	Width of works including sideways safety zone 1m	2m	3m	4m	5m	6m	7m	S Minimum width of sideways safety zone	E Distance from last cone to End of works sign	Minimum size of signs (mm)
Single carriageway – speed limit 30 mph or less	60	20 to 45	T Taper length	13	26	39	52	65	78	91	0.5	10 to 30	600
			No of cones	4	4	6	7	9	10	12			
			No of lights	–	–	–	–	–	–	–			
Single carriageway – speed limit 40 mph	60	45 to 110	T Taper length	20	40	60	80	100	120	140	0.5	30 to 45	750
			No of cones	4	6	8	10	13	15	17			
			No of lights	3	5	7	9	12	14	16			
Single carriageway – speed limit 50 mph or more	75	275 to 450	T Taper length	25	50	75	100	125	150	175	1.2	30 to 45	750
			No of cones	4	7	10	13	15	18	21			
			No of llights	3	6	9	12	14	17	20			
All-purpose dual carriageway – speed limit 40 mph or less	60	110 to 275	T Taper length	25	50	75	100	125	150	175	0.5	30 to 45	750
			No of cones	4	7	10	13	15	18	21			
			No of lights	3	6	9	12	14	17	20			

Speed limit mph	20	30	40	50	60
L Longways clearance	0.5	0.5	15	30	60

Speed limit mph	30 or less	40 or more
C Clearance to works vehicle	2	5

Notes

1 For roads covered by this Code, the minimum height of cones is 450 mm where the speed limit is 40 mph or less, and 750 mm where the speed limit is 50 mph or more.

2 The maximum spacing between cones in longitudinal lengths shall be 9 metres, but no fewer than two cones shall be used in any length between tapers.

3 Lead-in tapers where two-way traffic control is used, and all exit tapers shall be at about 45° to the kerb line with cones spaced 1.2 metres apart maximum.

4 In certain circumstances on congested roads with speed limits of 30 mph or less, the lead-in taper may be reduced to 45° (see page 19).

5 The longways clearance (L) is the distance between the end of the lead-in taper and the first traffic barrier placed across the lane.

16 Data Collection

16.1 Each traffic management vehicle is equipped with a vehicle tracking and dynamics device linked to the Big Change Field Service System. This will automatically log the operative's arrival and departure time at the site, as well as any time the vehicle is idling and any movement within the site.

16.2 This information will be used to confirm the operative's location and times on site for the client. Operatives are also required to complete a job card listing the time spent on each site and the works caried out during each visit and take site photographs when arriving on site, and prior to departure in accordance with the **company site photographic Policy PY022-CEN**.

16.3 If required a more detailed breakdown should be provided for each client. These can be checked and confirmed on a constantly live feed from the vehicle to the field service system.

16.4 Where operatives are requested to conduct manual control of temporary signals, a log should be kept detailing the approximate queue length in every direction at 30-minute intervals. This should be available for the site management team to scrutinise. This data can then be presented as evidence to the local or highway authority as mitigation for reduction in site manual intervention time.

16.5 Supervisors will undertake spot checks and site inspections to ensure works are undertaken as planned.

17 Manual Control of Temporary Traffic Signals

17.1 Consideration should be given to changing the form of control to alternative traffic control method or signal type which are more technically advanced and have active traffic queue monitoring solutions over manual intervention. The least preferable option is always to placing operatives in direct control. There are products available which will actively change the flow rates and direction based on queue detection and monitoring. If the use of these items has been discounted, a further risk assessment should be made in consultation with the client and the highway authority to determine a suitable solution.

17.2 Consideration should be given to providing additional advance signage and alternative routes to avoid the restriction to mitigate the use of manual intervention.

17.3 Where specifically requested and based on risk assessment and traffic volume is creating an unacceptable delay to the normal flow, or intervention and manual control are stipulated in the contract, or a requirement from the local highway authority. The operative will take positive control when required. The operative should provide a detailed log of when manual control was implemented and the reason for the intervention.

17.4 Where the obstruction continues round a bend or corner so that the operator posted at one location cannot see the end of the works, manually controlled signals should not be used. However, if it is unavoidable for short duration works or emergencies, then a second operator who can see the other end of the works shall be placed at an intermediate point, and telephone or radio communication established between the two operators.

18 Public Interaction

18.1 Operatives should always conduct themselves with the highest integrity and remain polite and helpful regardless of aggressive approach, verbal abuse or unsavoury conduct of the general public.

18.2 Abuse of any form is not tolerated and if received from any source.

- Report should be made to the site management for immediate action or record.
- A further report should be made to the QHSE Manager through the Notify App
- Conflict of any kind **MUST** be reported, investigated and recorded.
- Hatton Traffic Management personnel are to avoid confrontation.
- Hatton Traffic Management personnel are to put their personal safety-first above protection of equipment and vehicles.
- If concerned about personal safety, stop working and leave the site/location.
- Any unhappy members of public should be treated with respect and directed to the Site Manager/Supervisor or given the Hotline number on the permit board.
- If required, the work will be cancelled to avoid dangerous working.

19 Night Shift Working

19.1 The site-specific risk assessment should refer to all works where staff are required to undertake works as a night shift, or detail works as dark hours working. IE. Not full night shift but works that are conducted during the hours of darkness.

19.2 Hi-vis PPE must be worn, and it should be clean and serviceable. Weather dependent PPE should also be available if required. (Hard hats with head torches **MUST** be worn when outside of the vehicle, head torches are to be switched on).

19.3 For night shift working additional risk measures are considered which include ambient light conditions, street lighting urban or rural environments, time of the year, summer/winter, welfare facilities, ground conditions and activities on site. This **MUST** be covered on the TBS.

19.4 It is not always possible to assess all areas of the work zone therefore staff are also encouraged to undertake dynamic assessments of their work zone as they progress.

19.5 Area's that are rocky or muddy with angled embankments should be avoided.

19.6 Vehicle work lights are to be fitted and working and illuminate the area of ground immediately outside the passenger door and space down the non-live side of the installation or maintenance vehicle.

19.7 TMOs MUST use a greater safe distance for crossing the carriageway. Refer to HSE Construction information Sheet 53 (CIS53) Reducing Risk in Temporary Traffic Management Operations, for further information on crossing the carriageway.

19.8 Operatives who work in pairs during the hours of darkness, one **MUST** always watch the approaching traffic if the other is engaged in erecting or removing signs or cones.

19.9 Project Managers/Supervisors are to ensure that where required (Hi Risks) that two Operatives are to be used. (if 1 Operative used Lone Worker Policy is to be followed)

19.10 Where the ground conditions cannot be established in daylight hours, Operatives are encouraged to take small steps or shuffle through grass verges to avoid turning an ankle or falling on uneven ground.

19.11 Wet or angled embankments should be avoided; no work is to be undertaken at or near water courses during the hours of darkness.

20 Operative Conduct

20.1 Operatives on site are to stay alert at all times, the wearing of hooded or Hoodie style tops with the hood up is not permitted. headphones, earbuds, air pods or any kind of portable music playing equipment is not permitted.

21 Operative Duties

Operatives Should:

- Complete job cards effectively and take site photographs on arrival and prior to departure.
- Position themselves in the most advantageous position or signal head to see the largest area of the site or the busiest approaches to the works. Preferably where all approaches can be seen and monitored.

- Remain vigilant and watch for red light running
- Undertake Manual Control until instructed to revert to Vehicle Actuated Mode.
- Maintain a log of approximate queue length at 30-minute intervals and report excessive delays.
- Provide the most dynamically advantageous solution to moving traffic through the site
- Limit delays, hold ups and red time between phases as much as reasonably practicable

Operatives Should not:

- Remain in the vehicle during direct control unless the system has remote operation or welfare reasons dictate, and where visibility of the site can be maintained.
- Deviate from the planned control operations without permission.
- Park inside the safety zones on any site.
- Park in locations that obstruct sight lines through the works
- Leave site without notifying the site management.
- Sleep in a vehicle
- Watch videos, television or engage in social media or any activity that distracts the operator at any time.
- The wearing of personal music players, headphones or ear buds is not permitted at any time.
- React to provocation or abuse of any kind

22 Leaving Site

22.1 The operative will undertake a full inspection of the site and rectify and document and actions, including taking appropriate site photographs of relevant areas of the site.

22.2 If Man on site is 24hrs a day, on the 12 hour shift change over, any site issues must be passed on to oncoming team.

22.3 Where the site management is available, confirm the requirement to end manual activation of signals and revert to Vehicle Activation Mode.

22.4 If the site management are not available, the operative should consult with the site management team in advance to ensure all steps are considered and confirmed by the client *E.g. Undertake manual control until 19:30hrs where the client has left site and traffic is still consistently busy and the highway authority have made this a requirement for the works.*

22.5 Any temporary departures form site must be noted and reason for leaving. This includes welfare reasons. (If possible, a replacement operator should be provided)

Note Document the time the operative left site and take site photographs, note the approximate queue and delay lengths at that time.

23 Linked Documents

Document Name
Safety at Streetworks and Road Works Code of Practice (Red Book)
Guidance Note GS6 (Fourth edition) Avoiding danger from overhead power lines.
OF20-CEN Task Briefing Sheet
PY002-CEN Vehicle Policy
PY003-CEN Incident Reporting Policy
PR006-CEN Spillage Procedure
PY007-CEN Lone Working Policy
PY036-CEN Health & Well Being Policy
PY051-CEN Working at Height Policy
PY053-CEN Personal Protection Policy (PPE)
RA015-CEN Working Near Water
RAMS025- Works at or near a level crossing in place.
Traffic Signs Manual Chapter 8 Part 1 & Part 2 2009.
Traffic Signs Manual Chapter 8 Part 3 2016
TR001-DHB (Drivers Handbook)

Note All the above documents can be found on the field service tablets or on SharePoint

24 Risk Assessments

24.1 The following risk assessments are based on Generic TM 12D; the following operational hazards and risks provide a general indication of what may be encountered during normal TM works.

- Collision of plant or personnel with moving vehicles, highway traffic or work vehicles
- Working at night
- Manual handling
- Lone working
- Driving
- Noise
- Uneven ground (slips / trips / falls)
- Violence / abuse from members of the public
- Weather conditions & visibility
- Road layout
- Fatigue

24.2 The list is not exhaustive and operational personnel **MUST** carry out an on-site dynamic risk assessment. Risk assessment to be completed on the Field Service tablet before any sector scheme 12D work is undertaken.

24.3 If any risks, operational or environmental are identified when carrying out the on-site dynamic risk assessment, you **MUST** inform your supervisor immediately and prior to the deployment of traffic management equipment.

24.4 If at any point throughout your work, you encounter an unsafe situation you **MUST** stop work and contact your supervisor immediately for guidance.

24.5 The risk assessments **MUST** be communicated to all personnel undertaking any traffic management 12D works.

- If ANY risk is **HIGH**, do not proceed with the operation, abandon the job, or look at alternative delivery methods.
- If ANY risk is **MEDIUM**, proceed only with caution, introduce additional control measures where possible.
- If All risk is **LOW**, proceed with work.

24.6 Risk Scoring Methodology & Risk Assessments

Likelihood Categories		Severity Score				
Category	**Description**	**1**	**2**	**3**	**4**	**5**
1	Extremely Unlikely	1	2	3	4	5
2	Unlikely	2	4	6	8	10
3	Occasional	3	6	9	12	15
4	Likely	4	8	12	16	20
5	Expected	5	10	15	20	25

Severity Score Description	
1	Minor Injuries/inconveniences. Employee can continue to work - short term local damage
2	Minor Injuries. Operative requires first aid treatment. Stops work - medium term local/short term regional damage.
3	Reportable/LTI or illness - long term local/regional damage
4	Major injury or illness with long term effects - long term widespread damage
5	Fatalities - Widespread permanent damage

Risk	Action Required
Low	Check that no other risks can be eliminated by modifications of design then proceed with design. Record residual risks
Medium	Reduce risks as far as reasonably practical. Consider alternative design or construction method. If alternatives are not available, specify precautions to be adopted. Record residual risks.
High	Seek alternative solutions. If alternatives are not available, specify precautions to be adopted & advise Senior Management & Supervisor (if appropriate). Record residual risks
Examples of Persons at Risk	Inexperienced
	Vulnerable Road Users (VRU's) including Public, Cyclists, Horse riders.
	Lone workers (LW)
	Operative (OP) (TMO or/and Ganger)
	Site Personnel (SP)
	All

24.7 Risk Scoring Methodology & Risk Assessment Works Environmental

Category	Control	Severity Score				
Likelihood	**Description**	**1**	**2**	**3**	**4**	**5**
1	High degree of control	1	2	3	4	5
2	Medium degree of control	2	4	6	8	10
3	Moderate degree of control	3	6	9	12	15
4	Slight degree of control	4	8	12	16	20
5	Negligible degree of control	5	10	15	20	25

Severity Score Description	
1	All aspects fully controlled or have negative effect upon the environment
2	Aspects exist at recognisable levels, which may impact on the environment; but any change is easily recoverable with no lasting effect
3	Will have an effect on the environment - Damage is short term and is always recoverable
4	Major Impact - Damage is not permanent, but may take some time to remedy
5	High Impact - Risk of severe environmental damage

Risk	Action Required
Low	Low impact identified - Control measure to be adopted and monitored
Medium	Medium impact identified - Ensure that the aspect & impact assessment is reviewed, further controls may be necessary
High	High impact identified - Re-evaluate the aspect & impact assessment and develop / determine greater controls
Examples of Receptor	Air (A)
	Land (L)
	Water (W)
	Natural Resources (NR)
	Community/Residence/Pedestrians (CRP)
	Operative (O)
	Ecology /Habitat (EH)
	Carbon Footprint (CF)

Key Environmental Issues	
Local effects of Pollution (air quality, noise, waste, lighting, odour	Carbon emissions and greenhouse effect global warming
Water source and ocean Pollution	Deforestation, soil erosion and land quality
Material resources & Land despoliation, supply chain issues & inequal disruption to impacts	Energy Supplies, innovations in food and fuel
	Agricultural issues arising from global trade

Hazard(s)	At Risk	Risks	PRE-RCM Risk score (L x S)				Risk Control Measures	POST-RCM Risk score (L x S)			
			Likelihood	Severity	Risk Score	Risk Level		Likelihood	Severity	Risk Score	Risk Level
Inexperienced TM operatives implementing TTM	TMO/P/SP	Major Injury or long term health effect	5	4	20	H	a. Structured Induction and Site-Specific Training before being allowed to work b. Buddying system with experienced TMOs or Supervisors c. Daily briefings and toolbox talks with clear role allocation and expectations d. Active supervision and mentoring until competence is demonstrated e. Regular competency checks and feedback loops f. Clear stop work authority, ensuring they know they can speak up if unsure	2	4	8	M
TM vehicles operating on public roads and sites	All	Not distinguishable to other motorists, risk of collision and fatal/serious injury	2	5	10	M	a. All TMIV's are marked and equipped as a minimum to the requirements of Traffic Signs Manual – Chapter 8: Part 2 Operations (2009) b. All TMIV's and TM vehicles are checked prior to their use daily to ensure that everything is in working order.	1	5	5	L
TM vehicles operating on public roads and sites	All	TM vehicle pulling off carriageway or into works area and colliding with other vehicles	2	5	10	M	a. TMIV to use beacons, indicators and use relevant access/exit points. High visibility markings remain facing the flow of traffic.	1	5	5	L

TM Vehicles	All	TM vehicle reversing and picking up TM equipment. Colliding with other vehicles, running over/crushing Operatives	5	4	20	H	a. TMO to check site is clear of other vehicles and any other site personnel/members of the public before commencing any reversing operations. b. Always use a banksman when on clients sites to reverse. c. Where available use reversing aids such as reversing cameras.	2	4	8	M
TM Installation and Removal	TMO/SP	Signs falling on TMO(s)/public/SP	4	4	16	H	a. Set up as per method. b. Only TMO's with 12D sector scheme training to be used. c. PPE to be worn, clean and serviceable. as per PPE section d. Carry out TM works at times of reduced traffic flow. e. Use appropriate manual handling. f. Always work from the safe side and be vigilant of any road user.	1	4	4	L
TM Installation and Removal Erecting signs	TMO/P/SP	Signs falling on TMO(s)/public	4	4	16	H	a. Erect signs on firm, level ground. b. Ensure adequate number of sandbags used to secure frame/sign. c. Ensure that signs are visible to the highway user and do not reduce the footway to less than 1 metre. d. Operatives trained in manual handling techniques.	1	4	4	L
Live traffic during light setup/removal	All	Struck by vehicle, serious injury or fatality	5	4	20	H	a. Use advance signage to warn road users before the setup zone b. Establish a safe working zone using cones and Chapter 8 layouts c. Ensure operatives wear correct high-visibility PPE (Class 3 minimum) d. Always face the oncoming traffic when deploying/removing heads near live carriageways e. Brief operatives on live traffic risks before starting setup	1	5	5	L

Incorrect light phasing/timing	All	Head-on collisions, public injury, reputational damage	3	5	15	M	a. Only trained, competent personnel to program and test light heads b. Phase timings calculated according to traffic flow and visibility c. Trial run conducted before going live d. Use of manufacturer's instructions or pre-approved timing plans	1	5	5	L
Power failure or battery loss	All	Signals fail, uncontrolled junction, increased crash risk	4	4	16	H	a. Fully charge all batteries before deployment b. Use quality-checked battery packs or mains supply (if applicable) c. Keep spare battery packs or alternative power on site d. Regular visual checks and test cycles throughout the shift e. Stop/Go boards to be placed at the traffic lights in the event of TL failure f. Include battery maintenance in daily vehicle/plant checks	1	4	4	L
Poor visibility of lights (e.g. bends, dips, poor lighting)	All	Drivers run the red, risk of vehicle collision	3	5	15	M	a. Place TTLs where drivers have a clear, unobstructed line of sight b. Use repeater heads if visibility is limited due to bends, hills, or lighting c. Install additional warning signs in advance of signal heads d. Check visibility during daylight and low light conditions e. Consider temporary lighting or illumination in poorly lit areas	1	5	5	L
Obstruction of pedestrian paths	All	Slips, trips, impact with equipment	3	3	9	M	a. Ensure TTL heads, barriers, and cables do not block pedestrian footways b. Divert footways only with proper signage and safe alternative routes c. Use ramps or coverings over cables to prevent trips d. Brief site team on pedestrian interaction zones e. Inspect the area regularly to keep access clear	1	3	3	L

Improper placement (e.g. wrong distance between heads)	All	Confusion, driver error, accidents	3	4	12	M	a. Confirm placement using site-specific traffic management drawings b. Double-check signal angle to ensure visibility for all approaches c. Correct distances and placements before go-live	1	4	4	L
Public interference or vandalism	All	Signal moved or switched off, uncontrolled site	3	4	12	M	a. Fit anti-tamper locks or security bolts to TTL units b. Cone or barrier off the signal head to deter tampering c. Place signage warning of legal consequences of interference d. Monitor TTLs regularly during shifts, particularly on overnight setups e. Immediately report and replace damaged or moved equipment	2	4	8	M
Use of Stop/Go Boards	TMO/P/Road users	Operative struck by vehicle while controlling traffic Driver confusion or non-compliance (e.g. ignoring signals) Lack of coordination between ends Fatigue or distraction of the operative Poor visibility or lighting conditions Untrained or unbriefed operatives Slips/trips while crossing or standing in carriageway	4	5	20	H	a. Only trained TMOs operate Stop/Go boards b. PPE to be worn as per these RAMS c. Stand on firm ground, behind taper or cones, facing traffic clearly d. Radios or visual cues between both ends to prevent conflict e. Operatives clearly visible in low light (use head torch & portable lighting if needed) f. Confident handling of board, assertive presence, regular rotation to avoid fatigue g. Stop/Go use should be covered in RAMS and briefed during	1	5	5	L
Contractor's staff straying into the safety zone or carriageway	SP	Serious injury to SP	2	5	10	M	a. Light continuous barrier or second row of traffic cones and safety Line will be placed adjacent to the working space to mark the inside edge of the sideways safety zone (S) and a traffic barrier after the longways safety zone (L) to prevent any possible straying or parking of vehicles/plant in these areas.	1	5	5	L

Vehicle Movement within the Road Closure.	TMO/SP	Collision with Plant or Operatives	2	5	10	M	a. Amber Beacons to be illuminated when driving through the works area. b. Site Speed limit to be kept to 10mph (unless stated otherwise). c. Be aware of plant operating on site. Wait until the plant operator has acknowledged awareness of TMIV or other TM vehicles before passing (particularly excavators when slewing). d. Always gain eye contact with plant operators/signallers/slingers and wait for their instructions. e. Avoid any reversing on site and use a banksman to revers when reversing is required. f. Always use site access and exit points and don't enter/exit site through safety zones.	1	5	5	L
Vehicle Strikes	TMO/SP	Serious injury to TMO & SP	4	4	16	H	a. Use of cones, Barriers and signage to be used. b. Only TMO's with relevant sector scheme training to be used. c. PPE to be worn, clean and serviceable. as per PPE section	1	4	4	L
Verbal abuse aggression from public	TMO	Stress, injury	4	4	16	H	a. Conflict management training. b. Clear signage to be used. c. TMO not to put themselves in danger, get into a conflict situation. d. TMO to return to their vehicle and lock the door e. Contact supervisor/police if needed f. Report and record all incidents through notify. g. Contact supervisor/police if needed	2	4	8	M
Incorrect access given to unauthorised vehicle	SP/P	Security breach, risk to site works	4	4	16	H	a. TMO to check ID or reason for access b. TMO to use access list if provided c. Escort through works when required d. Supervisor/QHSE team to review process if breached.	1	4	4	L

Trips/slips and falls	TMO/SP	Sprains, bruising, head knocks	3	3	9	M	a. Keep area tidy at all times b. Store any unused TTM equipment on vehicle c. Avoid trailing equipment around access point(s) d. Use cones to mark hazards around near access points. e. PPE to be worn, clean and serviceable. as per PPE section f. Head torch is to be fitted to Hard hat and switched on at night or in inclement weather. g. Mobile lighting to be used when required h. Vehicle work lamps to be used when loading/unloading at night or in inclement weather.	1	3	3	L
Weather exposure (heat, cold, rain)	TMO	Fatigue, dehydration, illness	3	2	6	M	a. Suitable clothing to be worn, PPE, waterproofs in wet weather. b. Shelter breaks c. Water breaks to be implemented in extreme heat. d. Sun cream to be applied to exposed skin in extreme heat.	1	2	2	L
Manual handling of signage/barriers	TMO	Strain/injury	4	4	16	H	a. Team lifts where needed b. Use of mechanical aids (e.g., Tail lift, sack truck or trolley) c. Manual handling awareness undertaken d. Lightweight equipment to be used were possible	1	4	4	L
Lifting SLG items (signs, cones, frames) by hand	TMO	Manual handling injuries (strain, sprain, back injury)	4	4	16	H	a. TMO carries out a full site risk assessment b. TMO not to proceed with work if site unsafe and report to supervisor. c. Manual handling training d. Team lifting for heavy/bulky items e. Use of mechanical aids (e.g., Tail lift, sack truck or trolley) f. Plan load layout in advance to minimise handling	1	4	4	L
Loading on uneven or unstable ground (site)	TMO	Slips, trips, falls	4	4	16	H	a. Pre-check ground stability b. Maintain clear access and egress c. Use suitable footwear with good grip as per PPE requirements S3 Standard with laces fastened up fully.	1	4	4	L

Lifting above shoulder height onto flatbed	TMO	Musculoskeletal injuries, falling items	4	4	16	H	a. Hard Hat to be worn and fastened up. b. Use drop-down tailgates or steps c. Use two-person lift or mechanical hoist if available d. Store heavier items lower on vehicle	1	4	4	L
Poor visibility during loading (early morning/night)	TMO	Trips, vehicle collisions	4	4	16	H	a. Adequate task lighting, vehicle lights, work lights on rear of vehicle. b. Wear Hi-Vis PPE c. Site lighting in depot d. Position vehicle in well-lit area	1	4	4	L
Traffic movement during site loading	TMO	Hit by vehicle	4	4	16	H	a. Temporary Traffic Management in place b. Use of Lookout/Signaller/2ndTMO c. Exclusion zones around loading areas to be used where required d. Vehicle beacons and hazard lights to be switched on when outside the works area	1	4	4	L
Unsecured items during transit	TMO P	Falling load during transit	3	1	3	L	a. Use of vehicle-specific securing systems (straps, ratchets) b. Regular checks during journey, retighten straps when required c. Use a Load configuration plan	1	1	1	L
Poor visibility/night work	TMO/SP	Reduced safety, increased accident risk	2	4	8	M	a. Use of reflective clothing b. Illuminated signage c. Adequate lighting	1	4	4	L
Fatigue (long hours, low alertness)	TMO	Reduced concentration, increased error risk	2	3	6	M	a. Adequate breaks b. Rotate duties c. Fit-for-work checks d. Avoid excessive overtime e. Reporting of fatigue to supervisor	1	2	2	L
Reinstating moved traffic	TMO	Struck by vehicle, manual handling injury	4	4	16	H	a. Conduct task during low traffic flow b. Use buddy system c. Wear full PPE	1	4	4	L

management equipment							d. Follow safe manual handling practices e. Use IPV				
Environmental Risk assessment											
Use Of Vehicle – C02, S0x, N0x and particulates emissions	A/CRP/O	Air Pollution – Green House gases = Global Warming and Climate Change	2	3	6	M	a. Driver Behaviour Monitored, Speeding, Cornering, harsh braking and vehicle idling b. Euro VI vehicles used c. C02, NOx & PM monitored and reported to Senior Management d. Driving assessments carried out at induction. e. Vehicle policy in place f. Drivers' handbook in place g. TBTs, Alerts and Memos given to Drivers h. Vehicle serviced and maintained regularly i. Vehicles renewed on a 3 yearly cycle	1	3	3	L
Use Of Vehicle – Use of fossil fuels (natural resources)	NR	Material resources & Land despoliation, supply chain issues & inequal disruption to impacts	2	3	6	M	a. TBTs, Alerts and Memos given to Drivers. b. Vehicle serviced and maintained regularly. c. Vehicles renewed on a 3 yearly cycle. d. FORS Silver accreditation in place e. 14001 Accreditation in place. f. Fuel, MPG, Ltrs mileage reports reviewed by Senior Management	1	3	3	L
Refuelling of Vehicle/Plant - Use of fossil fuels (natural resources)	W/L/H	Water source and ocean Pollution, Deforestation, soil erosion and land quality & Biodiversity loss	2	3	6	M	a. Vehicles are filled up in a controlled environment. b. TBT given regarding Spillages/pollution c. Weekly walk around checks are carried out by the DM's	1	3	3	L
Vehicle Plant Maintenance - Use of fossil fuels (natural resources)	L/W/NR/EH	Water source and ocean Pollution, Deforestation, soil erosion and land quality & Biodiversity loss. Material resources & Land despoliation, supply chain issues & inequal disruption to impacts	2	3	6	M	a. Supplier of the vehicle carries out the maintenance and not on our sites. b. Minor top ups carried out on vehicle and plant, Jugs and funnels used c. Servicing's dates are monitored by the TAF at each depot to ensure the vehicles/plant is serviced on time	1	3	3	L

Emissions to land or water from spillage of fuel or oil											
Disposal of Waste - Failure to follow waste hierarchy Failure to comply with Duty of Care Avoidance of disposal of waste	All	Local effects of Pollution (air quality, noise, waste, lighting, odour) Water source and ocean Pollution, Waste and International waste trade Deforestation, soil erosion and land quality, Biodiversity loss	2	3	6	M	a. Waste is collected from site and brought back to the depot to dispose of within the waste receptacles. b. A Contractor GoGreen manages waste. c. Reports are generated by the QHSE Manager and reported on at the Senior Management QHSE meetings d. Weekly walk around checks are carried out within the depots to ensure waste is in the correct areas	1	3	3	L
PPE - Use of fossil fuels (natural resources)	NR	Material resources & Land despoliation, supply chain issues & inequal disruption to impacts	2	1	2	L	a. PPE controlled and supplied b. Stock off PPE kept c. New PPE is swapped for old and recycled through the supplier where it is reused.	1	1	1	L
Site Works – Noise generation	CRP/EH	Local effects of Pollution (noise)	2	1	2	L	a. TM Vehicles have silent night reversing Bleepers fitted. b. TM Operative not to communicate by shouting, radios to be used. c. Vehicle sound systems levels to be low. d. Vehicle horns not to be activated in a built-up area between the hours of 11.30 pm and 7.00 am except when another road user poses a danger.	1	1	1	L
Site Works – Obtrusive Lighting	CRP/EH	Local effects of Pollution (lighting)	2	1	2	L	a. Lighting is only used for short periods of time when laying out a site. b. Head torches are used at night-time and point in the direction of travel. c. TM vehicle head lights are used for traveling only.	1	1	1	L

							d. TM Vehicle work lights are used for loading unloading only and not to be left on. e. TM hazard beacons are only used for warning others of stopping to set up a sight or leaving a site.					