

**ESSENTIAL
STANDARD
no.16**

Street Works



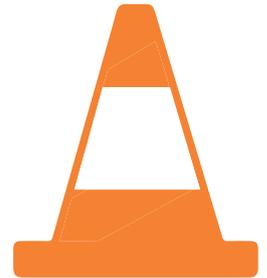
KEY MESSAGES

- Short duration static works must not exceed 60 minutes (including setting up and dismantling traffic management).
- Use a vehicle or vehicles to protect the workforce whenever possible.
- Plan all activities and ensure a trained and competent person does a risk assessment.
- Continually monitor the work location for changing conditions that may affect safety.
- All personnel must have their NRSWA qualification cards available on site.

1. Introduction

Every year, Thames Water and its partner organisations carry out thousands of minor short duration works activities on the public highway. Typical activities include sewer entry, valve operations, meter reading, sewer blockages, survey work (CCTV), leakage sounding, hydrant flushing, tankering and sampling – it's during these times that employees can be at their most vulnerable.

These standards provide guidance to assess the work to ensure you and other road users are safe.



2. Training

Minimum Training Levels

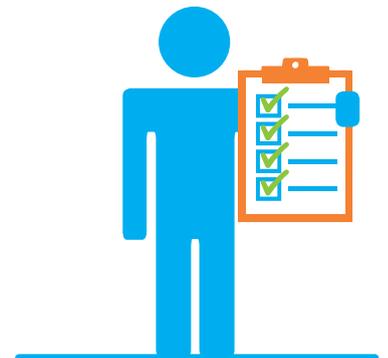
**NRSWA
qualification cards
MUST be available
on-site at all times.**



3. Responsibility for Establishing a Safe Working Area

There must always be a lead person on site who:

- Ensures work is carried out in accordance with the work plan and risk assessment.
- Briefs team members.
- Ensures the worksite is set up correctly before starting any activities.



4. Short Duration Static Works

Short duration static work will involve a single vehicle or a small number of vehicles undertaking:

- One or more intermittent stops of up to 15 minutes for activities such as sewer tankering (pumping from or discharging to sewers), sewer jetting, valve operations, meter reading etc.;



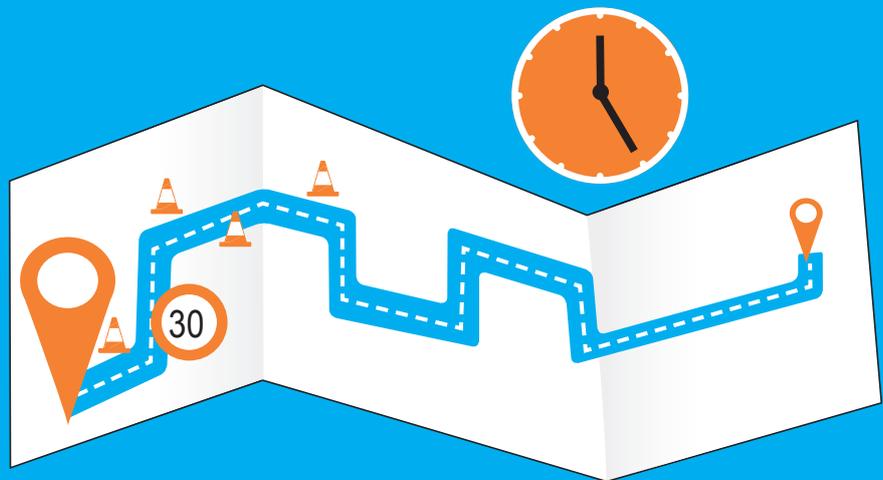
OR

- One or more intermittent stops of between 15 and 60 minutes for activities such as leak detection, making safe / minor repairs to manhole and valve covers, sewer entry, etc.

5. Planning and Risk Assessment

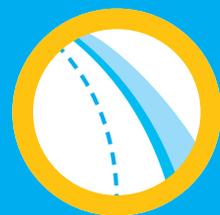
Perform a risk assessment before starting any task and take the following into account:

- road layout
- speed of traffic
- works to be undertaken
- location
- duration
- restoration of the work site to the original state



Work activities may only be managed as short duration static work if the risk assessment demonstrates it is safe to do so as a lone worker and if the following conditions exist:

- the activity, including erecting and dismantling traffic management, will take less than 60 minutes
- the road has a maximum speed limit of up to 40mph
- it's a single carriageway road
- visibility is clear and good on each approach for oncoming traffic of the work site (consider buildings, bends or narrowing in the road, brows of a hill and weather conditions)
- the work does not impede the public footway requiring pedestrians to seek an alternative route



If the work cannot be completed as a short duration task; DO NOT continue until you have assessed what other controls would be required to allow the task to be completed safely. This MUST involve at least a second person to support the work activity on site and may also require further guidance by a Unit 10 trained person.

Activities (that are not completed as a short duration task) must still comply with the Safety at Street Works and Road Works Code of Practice.

6. Traffic Control

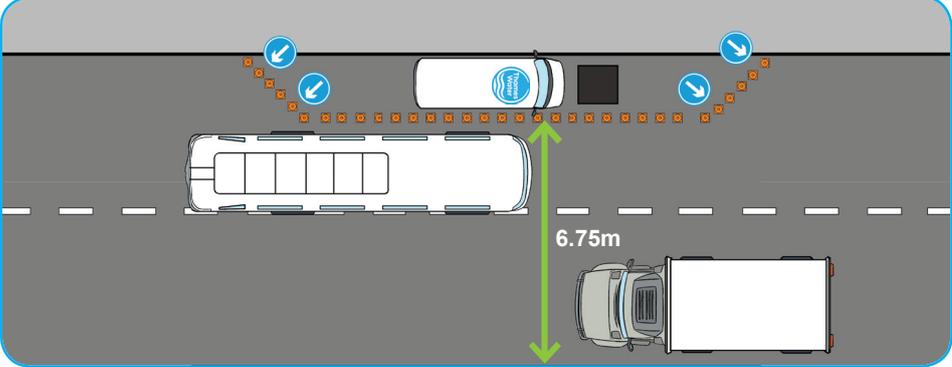
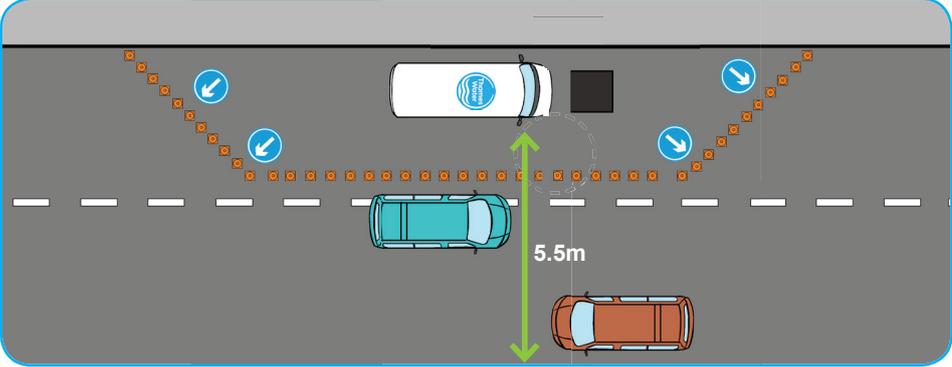
You can only carry out very short duration works without using static signs and cones if:

- Operatives are working wholly on the footway or verge, **and**
- A site-specific risk assessment demonstrates minimal obstruction to traffic flow, **and**
- There's a low risk to operatives and road users.

The works vehicle must be parked legally and where traffic can pass safely, without any difficulty and not obstructing pedestrians walking by, where possible maintaining a width of 1m. However, local permitting arrangements may specify an alternative width (mainly 1.2m) as a minimum.

The working area **MUST** not be left unattended at **ANY TIME** to allow for the barriers to be removed if required.

An adequate unobstructed road width is required to allow two-way traffic to flow safely past the work site.

<p>Standard: normal traffic including buses and HGVs (implement wherever possible)</p>	<p>Two-way working</p>
	<p>Min. 6.75m</p>
<p>Restricted: cars and light vehicles</p> 	<p>Min. 5.5m</p>



If the above cannot be provided, you can restrict the road width to 3.25m and use a 'single file traffic' supplement plate on the road narrow sign.

If restricted lane widths prevent the passage of larger vehicles, a suitable diversion route must be agreed in advance of the works with the highway authority and bus operator in line with permit advice. You must also consult a trained unit 10 competent person who will discuss what form of 'Temporary Traffic Control' may be required with the relevant highway authority for the work to be carried out safely.

7. Basic Requirements for Vehicles

Basic requirements when performing short duration static works:

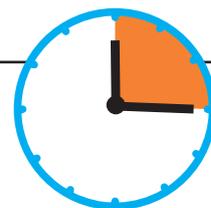
- Vehicle must be noticeably coloured i.e. chevrons and branding in line with statutory and TW requirements.
- Vehicle must have one or more roof mounted beacons operating at all times.

The following must then be in place before the works can start:

7.1 Site set up requirements

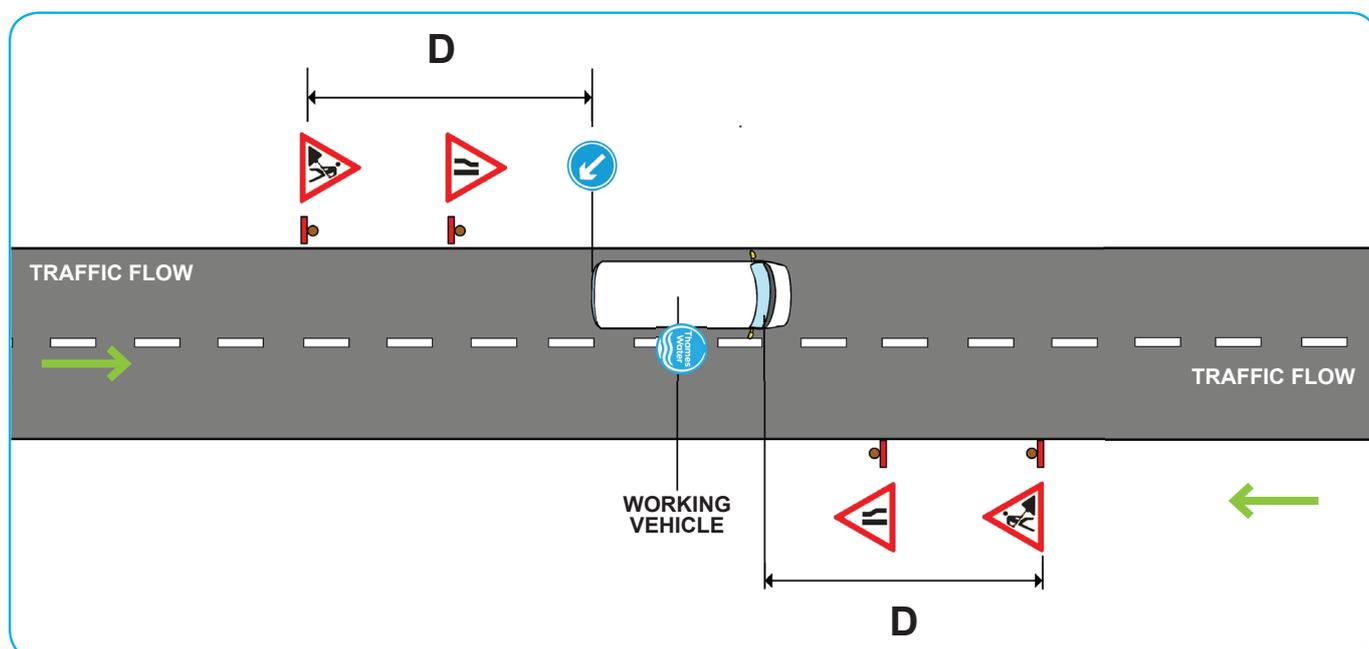
IF ANY OF THE FOLLOWING BASIC REQUIREMENTS CANNOT BE MET, DO NOT UNDERTAKE THE WORKS.

Short duration stops **less than 15mins** on a single carriageway/road



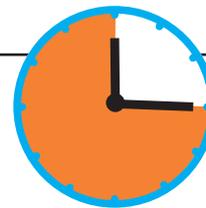
You need a minimum signage of:

- Keep left/right sign next to the vehicle.
- 'Road Works Ahead' signs for drivers approaching the vehicle from both sides.
 - Ensure clear visibility of 60m when approaching the sign (see appendix 1).
 - If visibility is limited, e.g. due to a bend or brow of a hill, provide extra advance signs.
 - Place signs at the appropriate distance in advance of the works. (See Code of Practice NRSWA and appendix 1 part D).
- Display the correct side 'Road Narrows' sign for drivers approaching in each direction.

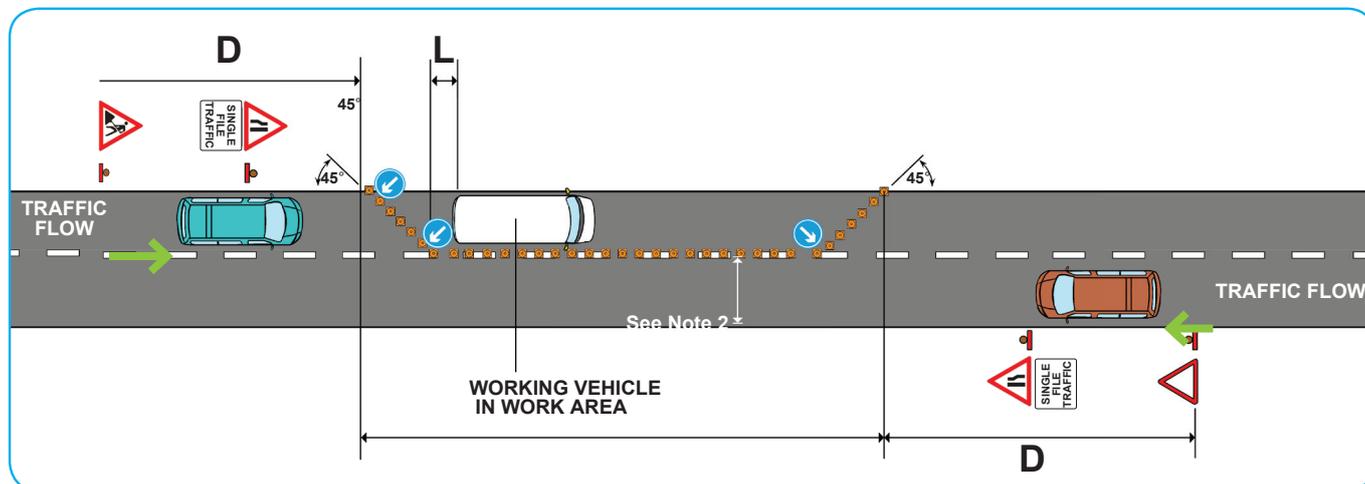


- See below for minimum equipment requirements and the above 'Site set up requirements'
- For dimensions D see Appendix 1

Short duration stops **more than 15mins** on a single carriageway/road



- Display advance signs as above.
- Display 'Keep left/right' arrow at the start of the lead-in taper.
- Place cones to form 45° lead-in and exit tapers of the works.
- Create a sideways safety zone of 0.5m.
- Place a barrier around the work area.
- Remember to allow two-way traffic, if this is not possible, see above section '6. Traffic Control' for road widths.



- For dimensions D and L see Appendix 1
- Note 2 – See above section '6. Traffic control' for further details

Stops **more than 60mins** on a single carriageway/road

WARNING: This is not short duration work and additional controls are required in accordance with NRSWA i.e. standard signing, cones and guarding for a fixed site must be provided with the potential requirement for traffic lights for the safety of other road users and operatives. This will need to be assessed with a Unit 10 trained and competent person.

8. Minimum Equipment Requirements

The list below details the minimum amount of equipment that must be carried and used as appropriate to undertake short duration work safely:

- +12 traffic cones (450mm) for tapers, depending on working area size
- 3 'road works ahead' signs (750mm) with removable supplement arrows if required
- 2 'road narrows' (750mm) with removable single file traffic plates
- 3 directional 'keep left/keep right' arrows (750mm)
- Folding pedestrian barriers

After completing an assessment using the Safety at Street Works and Road Works Code of Practice and additional signage is needed, it must be brought to the site before work can start.

9. PPE

PPE must be worn before leaving the vehicle and in accordance with Thames Water's PPE standards. The minimum standards will include:



Hard hat



High visibility jacket
(Class 3, two bar, long sleeves)



Steel capped safety boots



Gloves appropriate for the task



Eye protection



High visibility trousers
(Class 3)

All equipment must be maintained and in good condition.

10. Using a Vehicle to Protect the Workforce

Use vehicles wherever possible during short duration works. If you cannot use a vehicle because of the location (e.g. if it will obstruct a bus route/stop, etc.), then assess and apply additional control measures such as signs, cones and guards.

When using a vehicle or vehicles, you must:

- Turn on the roof-mounted amber beacons (remain on at all times).
- Park the vehicle in a safe position facing and the direction or travel between the oncoming traffic and work area.
- Ensure the vehicle creates a clear distance of:
 - 2m on roads with a speed limit of 30mph
 - 5m on roads where the speed limit is 40mph
- Ensure the work vehicle is noticeable (high-visibility chevron markings) and facing oncoming traffic.
- Have access to materials and equipment using the rear doors of the vehicle (unless the side doors open onto the footpath).
- Keep the rear doors closed when not in use to maximise chevron visibility on the back of the vehicle.



11. Monitoring

- The lead person/operator and team must continually monitor the site for changing conditions throughout the duration of the work.
- Significant changes will require the work to be suspended and the risk assessment reviewed before continuing.
- If additional safety controls are required, work must not recommence until they are installed.
- Unit 10 trained manager or supervisor must regularly inspect, and record, street works activities.
- Use of the PJ Keary's app for Streetworks compliance is recommended.



NB. This Essential Standard has been developed for short duration tasks only; if after planning and assessing the task it cannot be done safely, contact your supervisor for assistance. The task must ONLY start once additional controls are in place using the Safety at Street Works and Road Works Code of Practice for guidance and the task is completed as a minimum 2-person team.

Appendix 1

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								S Minimum width of sideways safety zone	E Distance from last cone to End of works sign	Minimum size of signs (mm)
			Width of works including sideways safety zone										
			1m	2m	3m	4m	5m	6m	7m				
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 lamps	3	3	5	6	8	9	11			
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 lamps	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 lamps	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 lamps	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 work vehicle	2	5

Notes

1. The minimum height of cones is 450 mm for roads covered by this code.
2. The maximum spacing between cones in longitudinal lengths shall be q 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.
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 of the red book).
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.