

# The Delivery Hub health, safety and environment Raising the bar 6

## Caravan/temporary sleeping accommodation

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## Objective

The objective of this guidance is to cover all types of temporary sleeping accommodation including private and rented caravans available for use; either on the infrastructure or within project/remote compounds provided by the lead contractor. This standard should also be applied to temporary accommodation at the recovery bases.

## Background

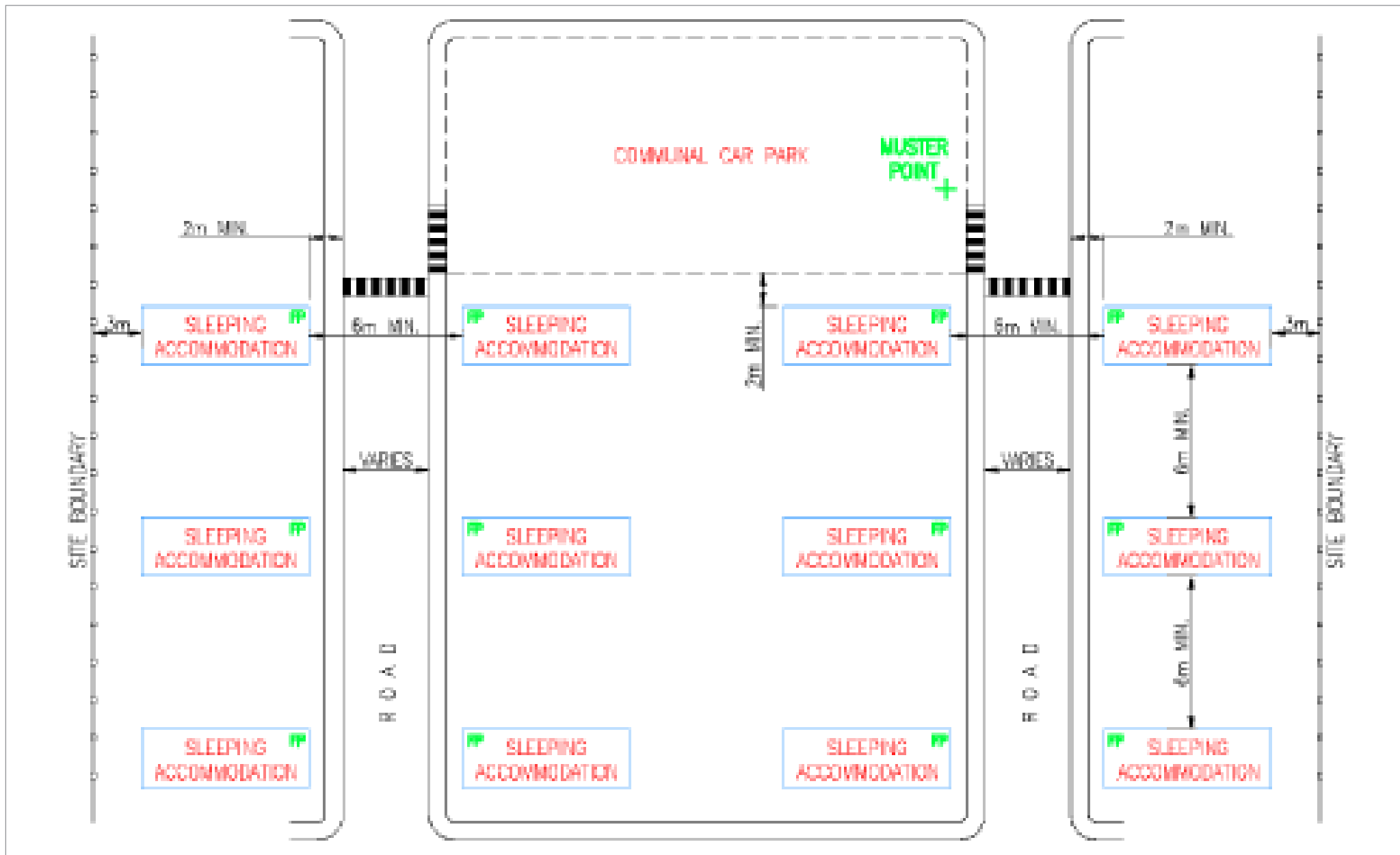
This guidance has been produced as a follow up to an incident on a Highways Agency project which resulted in an operative sustaining extensive burns when a caravan caught fire whilst he was inside. See Highways Agency safety alert 72 <http://www.highways.gov.uk/publications/aiming-for-zero-road-worker-safety>

## Minimum requirement

### 1. Density, spacing parking and protection from vehicles

- 1.1 No caravan or combustible structure shall be placed within 3 metres of the boundary of the site.
- 1.2 Every caravan shall be spaced at a distance of no less than 6 metres (the separation distance) from any other caravan which is occupied. The separation distance can be reduced provided adequate control measures are introduced to prevent the spread of fire.
- 1.3 No caravan shall be stationed within 2 metres of any road or communal car park within the site or more than 50 metres from such a road within the site.
- 1.4 Eaves, drainpipes and bay windows may extend into the separation distance providing the total distance between the extremities of two facing caravans is not less than 5 metres.
- 1.5 Any structure including steps, ramps etc, which extends more than 1 metre into the separation distance, shall be of non-combustible construction. There should be a 4.5 metre clear distance between any such structure and any adjacent caravan.
- 1.6 Fences and hedges, where allowed and forming the boundary between adjacent caravans, should be a maximum of 1 metre high.
- 1.7 Cars may be parked within the separation distance provided that they do not obstruct entrances to caravans or access around them and they are a minimum of 3 metres from an adjacent caravan.
- 1.8 The density of caravans on site shall be determined in accordance with relevant health and safety standards and fire risk Assessments. The gross density should generally not exceed 50 caravans to the hectare, calculated on the usable area.
- 1.9 Caravans/sleeping accommodation must be protected from impact by vehicles in line with the *Design Manual for Roads and Bridges: Volume 2 Highway Structures: design (substructures and special structures) materials section 2 special structures: Part 8 TD 19/06 requirements for road restraint systems* also interim advice note IAN 142/11.

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**2. Roads, gateways and overhead cables**

- 2.1 Roads shall be designed to provide adequate access for emergency vehicles and routes within the site for such vehicles must be kept clear of obstructions at all times.
- 2.2 New roads shall be designed and constructed of bituminous materials or concrete with a compacted foundation so as to be fit for purpose.
- 2.3 All roads shall have adequate surface water/storm drainage.
- 2.4 Two way roads shall not be less than 3.7 metres wide, or if they are designed for and used by one way traffic, not less than 3 metres wide.
- 2.5 One-way systems shall be clearly signposted.
- 2.6 Vehicular access and all gateways to the site must be a minimum of 3.1 metres wide and have a minimum height clearance of 3.7 metres.
- 2.7 Roads shall be maintained in a good condition.
- 2.8 Care shall be taken when providing traffic calming measures on roads, that any measures provided do not adversely affect the towing of caravans
- 2.9 Cable overhangs shall meet statutory requirement of current IET wiring regulations (708.521.1.1) and guidance note (7) on special locations:
  - 2.9.1 Overhead distribution systems are allowed provided that all conductors are insulated and so erected as to be unlikely to be damaged by vehicle movement. They are required to be not less than 6 metres above ground level subject to vehicle movement and 3.5 metres in other areas. Suitable warning notices should be displayed at the entrance to the site and on supports for the overhead line.

Further advice on minimum clearances and avoidance of danger from overhead electric power lines (GS6) is available from the Health and Safety Executive.

[www.hse.gov.uk](http://www.hse.gov.uk)

**3. Footpaths and pavements**

- 3.1 Every caravan shall be connected to a road by a footpath with a hard surface which shall be maintained in good condition.
- 3.2 Where practicable, communal footpaths and pavements shall not be less than 0.9 metres wide.

**4. Lighting**

- 4.1 Roads, communal footpaths and pavements shall be adequately lit between dusk and dawn to allow the safe movement of pedestrians and vehicles around the site during the hours of darkness.

**5. Bases**

- 5.1 Every unit must stand on a concrete base or hard-standing. Bases should be laid as a minimum in accordance with the current industry guidelines which are:
  - (a) 150mm hard core base topped with 100 mm of concrete.
  - (b) The finished raft must be generally level with due allowance for surface drainage.
  - (c) Where ground conditions dictate, a thickening or the introduction of reinforcement may be necessary.
- 5.2 The base must extend over the whole area occupied by the unit, and must project a sufficient distance outwards from its entrance or entrances to enable occupants to enter and leave safely.

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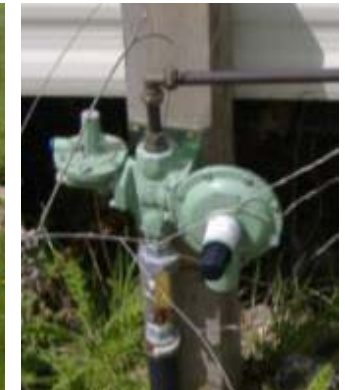
## 6. Maintenance of common areas

- 6.1 Every part of the site shall be kept in a clean and tidy condition.
- 6.2 Every road, communal footpath and pavement on site shall be maintained in a good condition, good repair and clear of rubbish.
- 6.3 Grass and vegetation shall be cut and removed at frequent regular intervals.
- 6.4 Trees within the site shall (subject to the necessary consents) be maintained.
- 6.5 Any cuttings, litter or waste shall be removed from the immediate surrounds of a pitch.
- 6.6 No materials to be stored under the caravans and wherever possible a barrier should be erected to prevent material being blown under the caravan.

## 7. Supply and storage of gas etc

- 7.1 Gas (including natural gas) and oil installations, and the storage of supplies shall meet current statutory requirements, relevant standards and codes of practice. (The Health and Safety Executive website, [www.hse.gov.uk](http://www.hse.gov.uk), provides details and information about the various legislative requirements and contacts if further information is needed. In addition the trade body for LPG suppliers, uk LPG, [www.lpga.co.uk](http://www.lpga.co.uk), also has information which may be of use.
- 7.2 Preference must be given to bulk storage and supply of liquefied petroleum gas to the accommodation as opposed to individual cylinders.
- 7.3 Liquefied petroleum gas cylinders must not be positioned or secured in such a way as to impede access or removal in the event of an emergency.
- 7.4 Liquefied petroleum gas cylinders must be appropriately stored and limited to a maximum of two per caravan.

- 7.5 Anyone being employed to carry out work on gas (including natural gas) or oil installations should be suitably qualified to do the work. The Health and Safety Executive pages contain details of some of the schemes. The communities and local government website contains details of various certification schemes which may apply. The details of these schemes can be found at [www.communities.gov.uk](http://www.communities.gov.uk).



## 8. Electrical installations

- 8.1 The electricity network shall be of adequate capacity to meet safely all reasonable demands of the caravans and other facilities and services within it.
- 8.2 The electricity network shall be subject to regulation under current relevant legislation and must be designed, installed, tested, inspected and maintained in accordance with the provision of the current relevant statutory requirements. The electrical installations on the site will be a distributor's network either belonging to the local regional electricity network operator or the lead contractor. The Health and Safety Executive website [www.hse.gov.uk](http://www.hse.gov.uk) contains information on the electricity legislation which may well apply to the site and can provide further information if needed.
- 8.3 All electrical installations shall have current electrical handover and test certification and be maintained in line with current IET wiring regulations.

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- 8.4 Any work on electrical installations and appliances shall be carried out only by persons who are competent to do the particular type of work being undertaken, and in accordance with current relevant statutory requirements.
- 8.5 Any work on the electrical network within the site shall be done by a competent person fully conversant with the appropriate statutory requirements. A suitably qualified person for the purpose of carrying out work on electrical installations and appliances, including maintenance and inspections, includes a professionally qualified electrical engineer, a member of the Electrical Contractors Association, a contractor approved by the National Inspection Council for Electrical Installations Contracting, or a qualified person acting on behalf of the above.
- 8.6 There shall be a mains hook up points provided on the site which meets current IET standards.
- 8.7 Placement of any electricity meters must be such that they are secure and can be read by the owner of the caravan.



## 9. Water supply

- 9.1 All pitches on the site shall be provided with a water supply sufficient in all respects to meet all reasonable demands of the caravans situated on them.
- 9.2 All water supplies shall be in accordance with all current legislation, regulations and relevant British or European standards. OFWAT lay down service standards for the water suppliers and details can be found on their website at [www.ofwat.gov.uk](http://www.ofwat.gov.uk).

- 9.4 Work on water supplies and installations shall be carried out only by persons who are qualified in the particular type of work being undertaken and in accordance with current relevant legislation and British or European standards. There are various schemes for suitably qualified persons. The main scheme is run by NIC certification and details can be found about the scheme at [www.niccertification.com](http://www.niccertification.com).
- 9.5 Potable (drinking) water shall meet the requirements of The Water Supply (Water Quality) Regulations 2000 which can be found at [www.dwi.defra.gov.uk/stakeholders/legislation/wqregs2007cons.pdf](http://www.dwi.defra.gov.uk/stakeholders/legislation/wqregs2007cons.pdf)
- 9.6 In order to maintain sanitary living conditions the lead contractor shall maintain surety of supply of potable water up to the stop tap or entry into each caravan during freezing weather conditions.
- 9.7 Consideration must be given to the risk of legionella bacteria particularly within storage tanks or shower blocks. The Health and Safety Executive website <http://www.hse.gov.uk/safetybulletins/legionella2.htm> provides details and information about the various legislative requirements and contacts if further information is needed.

## 10. Drainage and sanitation

- 10.1 Surface water drainage shall be provided to avoid standing pools of water.
- 10.2 There shall be satisfactory provision for foul and waste water drainage either by connection to a public sewer or sewage treatment works or by discharge to a properly constructed septic tank or cesspool.
- 10.3 All drainage and sanitation provision shall be in accordance with current legislation and British or European standards. As with water supplies, provision of sewerage facilities is overseen by OFWAT and codes of practice are in place.

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10.4 Work on drains and sewers shall be carried out only by persons who are qualified in the particular type of work being undertaken and in accordance with current legislation and British or European standards.

10.5 The lead contractor shall be responsible for the maintenance and servicing of common sewers/drainage including septic tanks.

### 11. Domestic refuse storage and disposal

11.1 Communal refuse bins shall be provided by the lead contractor at suitable intervals and these shall be non-combustible and housed within a properly constructed bin store.

11.2 All refuse disposal shall be in accordance with all current legislation and regulations.

11.3 No rubbish or combustible materials shall be stored outside or under of caravans, including items of general waste, timber etc.

### 12. Communal vehicular parking

12.1 Suitably surfaced parking spaces shall be provided to meet the requirements of residents, a minimum of one parking space per caravan must be provided.

### 13. Notices and information

13.1 Emergency contact details shall be displayed on a sign in a prominent position at the entrance(s) to the site.

13.2 A current plan of the site with roads and pitches marked on it shall be prominently displayed at the entrance(s) to the site.

13.3 The following information shall also be displayed by the lead contractor in a prominent place:

- (a) A copy of the most recent periodic electrical inspection report.
- (b) A copy of the certificate of public liability insurance.

(c) A copy of the local flood warning system and evacuation procedures, if appropriate.

(d) A copy of the fire risk assessment made for the site.

13.4 All notices shall be suitably protected from the weather and from direct sunlight.

13.5 The lead contractor must nominate an individual and deputies on the project who are responsible for planning, control and maintenance of the caravan/accommodation park.

13.6 A process for defect reporting and fault rectification must be established and advertised by the lead contractor.

### 14. Flooding

14.1 The lead contractor shall establish whether the site is at risk from flooding by referring to the Environment Agency's flood map. Advice on flood risks is available from the Environment Agency website [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk).

14.2 Where there is risk from flooding, the lead contractor shall consult the Environment Agency for advice on the likelihood of flooding, the depths and velocities that might be expected, the availability of a warning service and on what appropriate measures to take.

### 15. Requirement to comply with the regulatory reform (fire safety) order 2005

15.1 The lead contractor shall make available the latest version of the fire risk assessment carried out for inspection by residents and when demanded; [www.communities.gov.uk](http://www.communities.gov.uk) contains a range of helpful information on fire safety. This includes links to technical guides for specific types of accommodation, including one for sleeping accommodation.

15.2 The Fire and Rescue Service has a duty to provide fire safety advice to those who ask for it, although it will not carry out risk assessments.

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## 16. Fire points

- 16.1 These shall be located so that no caravan or site building is more than 30 metres from a fire point. Equipment provided at a fire point shall be housed in a weather-proof structure, easily accessible and clearly and conspicuously marked **FIRE POINT**.
- 16.2 Access to the fire point shall not be obstructed or obscured.



## 17. Fire fighting equipment

- 17.1 Where water standpipes are provided:
- The water supply shall be of sufficient pressure to project a jet of water not less than 5 metres from the nozzle.
  - There shall be a reel that complies with the current British or European standard, with a hose not less than 35 metres long, having a means of connection to a water standpipe (preferably a screw thread connection) with a water supply of sufficient pressure and terminating in a small hand nozzle.
  - Hoses shall be housed in a red box and marked **HOSE REEL**.

- 17.3 Where hydrants are provided, hydrants shall conform to the current British or European standard.
- 17.4 Access to hydrants and other water supplies shall not be obstructed or obscured.
- 17.5 Where standpipes are not provided or the water pressure or flow is not sufficient, each fire point shall be provided with water extinguishers (2 x 9 litres) a foam (AFFF) extinguisher (1x6 litre) and a dry power extinguisher (1 x 6 kilogramme) which comply with the current British or European Standard.

## 18. Fire Warning

- 18.1 A suitable means of raising the alarm in the event of a fire shall be provided by the lead contractor at each fire point.

## 19. Maintenance and testing of fire fighting equipment

- 19.1 All alarm and fire fighting equipment shall be installed, tested and maintained in working order by persons who are qualified in the particular type of work being undertaken, and shall be available for inspection by the Fire and Rescue Service.
- 19.2 A record shall be kept by the lead contractor of all testing and remedial action taken.
- 19.3 A weekly inspection of all firefighting equipment must be undertaken and records kept by the lead contractor.
- 19.4 All equipment susceptible to damage by frost shall be suitably protected.

continued

## 20. Fire notices

20.1 A clearly written and conspicuous notice shall be provided and maintained by the lead contractor at each fire point to indicate the action to be taken in case of fire. This notice should include the following:

On discovering a fire:

- (a) Ensure the caravan or building involved is evacuated.
- (b) Raise the alarm.
- (c) Call the fire brigade (the nearest phone is sited at .....).
- (d) Attack the fire using fire fighting equipment provided if it is safe to do so.

20.2 A fire assembly point shall be provided by the lead contractor in a position of safety and away from routes likely to be used by emergency services attending an incident. The fire assembly point and routes to it shall be clearly marked and maintained free of obstructions at all times.

## 21 First aid

21.1 It is recommended that consideration be given to the identification of first aiders in residence on the caravan site in the event of an emergency.

21.2 Access to first aid equipment shall be available outside normal working hours and emergency procedures shall be established by the lead contractor giving contact names and telephone numbers of responsible people and displayed in a prominent position on the site.

21.3 Copies of a route map to the nearest 24 hour accident and emergency hospital along with contact details shall be provided by the principal contractor at all first aid locations on the site.

## 21. Inspection and monitoring

21.1 The lead contractor shall ensure that prior to a caravan or sleeping accommodation being used each unit must have in place:

- a) A current test certificate of electrical compliance.
- b) That a residual current device is fitted at the main incoming supply point
- c) All portable appliances are tested and safe to use.
- d) That all gas appliances are tested by a gas safe registered engineer and have a flashback arrestor fitted.
- e) Operating smoke and carbon monoxide monitor alarms are fitted.
- f) A fire blanket and extinguisher are provided.

21.2 The lead contractor shall carry out regular inspection and auditing of the caravan site to ensure compliance with the guidance included within this document.

21.3 The lead contractor shall carry out an inspection of each caravan on site at a maximum of 12 monthly intervals, to ensure that:

- (a) All of the above requirements are still being complied with and that certification remains within date.
- (b) There is adequate ventilation available and that no ventilation holes have been blocked.
- (c) Potable drinking water is available and labelled if appropriate.

21.4 The lead contractor shall ensure that a register of occupants is maintained and available for inspection by health and safety or enforcement agency inspectors. This is also to assist fire service for accountability in the event of an emergency.

continued

## 22. Segregation and noise

- 22.1 The area designated for the caravans/sleeping accommodation shall be segregated from the remainder of the construction site by fencing greater than 1.8 metres in height and made of non combustible/fire retardant material.
- 22.2 Access to and from the site for both vehicles and pedestrians shall be controlled.
- 22.3 Segregation between pedestrians and vehicles shall be maintained along all access routes.
- 22.4 Noise levels within the designated area shall be kept as low as reasonably practicable with measures put in place to shield the area from construction and traffic noise.
- 22.5 Wherever possible a separate entrance shall be provided for caravan residents especially when there is 24 hour working.

## Legislation

There are references to legislation throughout the document however it is not intended to list all legislative requirements relating to welfare or sleeping accommodation.

For further information please refer to the following applicable legislation (note this is not exhaustive):

- Environmental Protection Act
- Control of Pollution Act
- Waste Regulations
- Regulatory Reform (Fire Safety) Order
- Water industry Act
- Building Regulations
- Institute of Electrical Engineers Wiring Regulations
- Gas Safety (Installation and Use) Regulations
- Construction Design Management Regulations.

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