Guidance for ensuring safe deliveries to construction sites

Code of Practice for Site Operations & Hauliers
1.0 Introduction

Delivery and collections to and from construction sites can present a high degree of risk due to the consequences if things go wrong.

Every year people are killed or injured by vehicles on construction sites. It is very important that all deliveries and collections from site are procured, co-ordinated, managed and controlled.

This Code of Practice provides guidance on how to prevent these accidents and is supported by a Driver Certificate of Professional Competence (DCPC) Training course.

"IT IS VERY IMPORTANT THAT ALL DELIVERIES AND COLLECTIONS FROM SITE ARE PROCURED, CO-ORDINATED, MANAGED AND CONTROLLED."

From this structured approach to safe deliveries to construction sites we aspire to achieve the following:

- **AN ACCIDENT-FREE WORKPLACE**
- **A HEALTHY WORKFORCE**
- **COST EFFECTIVE WORK PRACTICES**
- **A REPUTATION FOR QUALITY AND SOCIAL RESPONSIBILITY**
- **LEGAL COMPLIANCE**
2.0 Statistics

Construction is still one of the most dangerous areas of occupation and this is particularly true where construction and haulage meet. Although construction only accounts for about 5% of employment, it accounts for 27% of fatal injuries to employees with 39 fatalities in 2011/12. An estimated 1.4 million working days were lost to the industry during that period. Forty six fatalities involved workplace transport across all industries in the same period; nine of which were members of the public.

HSE regularly publish case studies and up to date statistics which can be used to assist in identifying hazardous activities and embedding knowledge for drivers and other staff.

The HSE also have a specific workplace transport web site which offers relevant guidance which can be found at www.hse.gov.uk/workplacetransport/

3.0 Causes of Accidents

The main causes of workplace transport accidents are:

- Being struck by a moving vehicle
- Falling loads
- Falls from vehicles
- Collapsing or overturning vehicles

Recent successful prosecutions have also included incidents involving vehicle loading/unloading and site traffic management issues.

4.0 The Accident Triangle

By identifying and reducing the ‘Near Miss’ events at the bottom of the triangle the number of events happening further up can be reduced. Ensuring near misses are reported and learned from is a key element of accident reduction.

Figures show that for every 600 near misses there are 30 property damage accidents, 10 minor injuries and 1 serious injury or fatality.

(Source: Frank Bird)

“ENSURING THAT NEAR MISSES ARE REPORTED AND LEARNED FROM IS A KEY ELEMENT OF ACCIDENT REDUCTION.”
The cost of accidents is far higher than the obvious immediate costs, which are often covered by insurance, such as injury, ill health and damages. The underlying costs can equate to between £8 and £36 for every £1 insured through:

5.0 The Iceberg Effect

- PRODUCT & MATERIAL DAMAGE
- LEGAL COSTS
- CLEARING SITE
- PRODUCTION DELAY
- OVERTIME WORKING & TEMPORARY LABOUR
- INVESTIGATION TIME
- LOSS OF EXPERTISE & EXPERIENCE
- FINES

6.0 Risk Assessment

Risk management is about taking practical steps to protect people from real harm and suffering. The following five steps summarise the process for identifying hazards and reducing the risks associated with them.

1. Look for hazards (something which may cause harm)
2. Decide who might be harmed and how
3. Evaluate the risks and decide whether existing precautions are adequate or more should be done
4. Record your findings
5. Review your assessment and revise if necessary

7.0 Applicable Law

Legislation covering the management of construction transport includes:

- Health and Safety at Work etc Act 1974
- Management of Health and Safety at Work Regulations 1999
- Construction (Design and Management) Regulations 2015
- Work at Height Regulations 2005
- Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)
- Provision and Use of Work Equipment Regulations 1998 (PUWER)
- Personal Protective Equipment Regulations 1998

This list is not exhaustive and each operation should be considered in light of the activities involved. Whilst the list may look daunting, the two principles which underpin all the requirements are Risk Assessment and Training.
8.0 Code of Practice for Site Management

8.1 Responsibilities
Responsibility for the management of site transport lies with the site management team. This may include, on larger sites, a Logistics Manager who is responsible for all aspects of the logistics supply chain, stores management, movement of people, goods and equipment on site.

Where the site is not large enough for this duty holder the roles and responsibilities need to be taken on by the site management team.

Banksmen should be present on all sites. Banksmen are operatives trained to direct vehicle movements on or around a site. They are sometimes referred to as traffic marshals.

They should be trained and competent to carry out this duty.

8.2 Planning
The Construction (Design and Management) Regulations 2015 requires the planning, management and monitoring of the construction phase. This involves the preparation, development and implementation of a written plan and site rules to cover the project. As part of this planning process a Traffic Management Plan should be developed and should include the following:

- Traffic routes
- Loading / unloading areas
- Pedestrian routes
- Height & physical restrictions
- Signage
- Proximity hazards
- Crossing points
- Fire assembly point
- One way systems (if applicable)
- Fire points
- Turning circles / Turning points
- LPG, flammable, & fuel stores
- Road hazards
- Weight restrictions
- Fire hydrants
- Gradients & ramps
- Service isolation points
- Crane locations

A traffic management layout drawing must be created from the plan which should be reviewed and updated at regular intervals and should reflect activities and layout of the site.

This drawing should be available at the site office, at the site entrance(s) and provided to the gatemen and banksmen.

Consideration should be given to areas surrounding the site. This should address such things as:

- Traffic routing to and from site
- Vulnerable road users*, e.g. cyclists, pedestrians and motorcyclists
- High risk areas in the locality such as schools and hospitals

It is important that at the tender stage, commercial teams should provide contractors with relevant information concerning the restrictions on deliveries and collections to site and the facilities available on site for unloading / loading of materials and equipment e.g. any public interface, delivery times or approach route requirements etc.

Commercial teams should ensure that contractors clearly address the management of deliveries and collections of materials to and from site within their tender returns and that they take consideration of the following requirements in particular:

- The vehicle is suitable for the site conditions and local environment
- The load is prepared so as to minimise any requirement to access the load bed of the vehicle, e.g. pre-slung loads
- The arrangements for loading and unloading of the vehicle on site are compatible with those available e.g. whether mechanical means are available

Prior to a contractor commencing work on site the detailed arrangements for the day-to-day management of deliveries as it applies to them, will be agreed between the project team and the contractor, (e.g. at the pre-start meeting) taking into account all of the above requirements and any additional project specific restrictions. Responsibility for logistics arrangements should be clear, and dedicated personnel allocated to this task. This should be recorded within the meeting minutes and reflected in the contractor’s Safe System of Work and Method Statement.

It is important that a driver induction / briefing should take place when the driver arrives on site and before any loading / unloading takes place.

*Construction Logistics and Cycle Safety (CLOCS) – Looking out for vulnerable road users.
8.0 Code of Practice for Site Management (Continued)

8.3 Personal Protective Equipment (PPE)
All drivers delivering to site should wear PPE at all times when out of the vehicle and descending from the cab. The minimum requirement is:
- Safety boots
- Hi-vis vest / jacket
- Hard hat
- Additional PPE such as glasses and gloves may be required and will be communicated at the induction / briefing.

8.4 Incident and near miss reporting
Arrangements within the site rules and plan must have details of the requirement to report incidents and near misses. These need to be communicated to the driver of any vehicle.
Hauliers should include a debrief of all drivers following delivery / collections to identify any incidents and near misses. Any such incidents should require follow up contact with the relevant site management to agree improvements to procedure / site / vehicle where possible. A log of such incidents will be kept by the haulier.

8.5 Haulier commitment
Obtain from the site a completed standard site information sheet and issue to the driver before any journey commences.
- Keep near miss and incident logs
- Provide suitable vehicles driven by drivers with specific, relevant training
- Ensure vehicles are safely loaded before departure
- Identify an individual who is responsible for ensuring that the Code of Practice is followed and records kept
- Commit to provide contractors and agency staff with sufficient information and training so that the work can be safely carried out

“EVERY SITE IS DIFFERENT AND LIKELY TO PRESENT DIFFERENT HAZARDS AND RISKS. THESE NEED TO BE EFFECTIVELY MANAGED.”
9.0 Code of Practice for Fleet Management

9.1 Responsibilities
Responsibility for the management of the fleet lies with the fleet management team. This may include the designated CPC holder, the Transport Manager, Depot Manager or Shift Manager.
Each haulier involved in deliveries to construction sites should clearly define and allocate responsibility for this role.
Managers and drivers involved in deliveries to construction sites should all be made aware of the contents of this Code of Practice and, ideally, have attended the relevant DCPC training course within the last 5 years.

9.2 Planning
Hauliers planning to deliver to, or collect from, construction sites should consider the following:

- **Vehicle maintenance**
  All vehicles should be maintained to the level outlined in the Guide to Maintaining Roadworthiness, and thorough, recorded daily walk round checks completed before departure.

- **Load**
  Correctly loaded and secured in accordance with the Code of Practice on Safe Loading of Goods Vehicles.

- **Licences**
  Drivers to carry drivers licence, digi card and DQC (where applicable) along with any specific site / equipment requirements.

Records will be kept by the haulier to evidence these activities.
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10.0 Site Layout

The following sections provide guidance to assist with delivery planning and driver briefings:

10.1 Reporting to site office before entry
Upon arrival at site the driver must report to the site office. The vehicle must stop and park in a safe, identified area and the key removed when exiting the vehicle.

10.2 Driver induction / briefing
Upon entry to the site the driver should be given an induction / briefing.

10.3 Site entry
Must be arranged to effectively segregate vehicles and pedestrians. Site speed limits must be displayed at the site entrance and designated vehicle routes must be signed and communicated through the driver induction / briefing.

10.4 Vehicle routes on sites
These should be clearly marked. On larger sites it may be possible to have one way systems. Drivers must adhere to the requirements of the signs. Where vehicle routes include blind corners, pinch points clear warning signs must be displayed. Safety features such as convex mirrors, highlighted bulk timbers, concrete road barriers and speed bumps / rumble strips should be considered to mitigate or reduce the impact of the hazard(s).

10.5 Reversing
Reversing should be kept to a minimum and must only be carried out in the presence of a suitably trained and competent banksman. Vehicles should be fitted with flashing beacons, audible warning devices and rear facing cameras.

10.6 Pedestrian routes on sites
These should be clearly marked. Where segregated routes cannot be deployed then a banksman should be in attendance to direct vehicles. Pedestrian routes must be firm and level.

10.7 Designated crossing points
Crossing points must be clearly marked and display warning signage for both vehicles and pedestrians with a clear line of vision established.

10.8 Overhead hazards
These should be identified and clearly marked. ‘Goal posts’ must be erected to mark overhead electrical cables. Under no circumstances should loads be tipped underneath the cables or in the area between the goal posts.

10.9 Loading / Unloading and storage areas
Work on site should be planned to minimise vehicle movements, and to avoid the unnecessary deliveries and the double handling of materials on site. The location of loading / unloading and storage areas needs to be carefully considered. Where there is little on-site storage space, off-site storage areas may be required for the temporary storage of materials. On larger sites where space is limited it may be necessary to consider using a Construction Consolidation Centre so materials can be delivered to the centre and then delivered to site when required.

10.10 Public protection
It is important that when any loading / unloading operations take place they are within the site boundary whenever possible. Care should be taken in the location of any dedicated loading / unloading areas to make sure that any activities do not impact upon members of the public, e.g. there should be no chance of anything being loaded or unloaded accidentally falling outside the site boundary. If loading or unloading activities do need to take place outside the site boundary sufficient consideration in the risk assessment and method statement should be made to ensure that members of the public are not put at risk.

10.11 Facilities for cleaning vehicle wheels
Provisions for cleaning of vehicles / vehicle wheels must be provided when site conditions make it likely that public roads may become soiled. For example wheel washes / jet washers should be used to prevent mud being placed on carriageways.

Example of a Construction Consolidation Centre operating

“ACCIDENT PREVENTION DOES NOT START WHEN WORK BEGINS ON SITE. BY GOOD DESIGN AND PLANNING THE RISK OF ACCIDENTS CAN BE SIGNIFICANTLY REDUCED.”
11.0 Other Hazards associated with Site Operations

11.1 Falls from height
All sites are required to provide protection to mitigate the risk of falls from height. This should be achieved by applying the following hierarchy regarding deliveries to site:
- Pre-slung loads requirement to eliminate the need to access the load bed
- Mechanical Means of Loading / Unloading to eliminate the need to access the load bed
- Vehicle Based (collective fall protection) Systems (e.g. Guard rails if access to the load bed is required a fixed ladder access point / fitted steps must be provided)
- Site Based (collective fall protection) Systems (e.g. Guard rails or air bags)
- Site Based (fall arrest) Systems (e.g. Overhead systems)

The above is applicable to all delivery vehicles (including smaller vans and pick-up trucks) and under no circumstances are delivery drivers to carry out any form of activity at height without suitable and adequate protection measures in place to prevent falls in line with the above mitigation controls.

There may be some instances whereby the arrangements available on site may not be suitable. In such instances it is the responsibility of the contractor to provide means to safely load / unload the vehicle and agree this with the Principal Contractor before the delivery is made.

11.2 Accessing / Egressing vehicles
Drivers should always climb down from the cab and not under any circumstances jump down. Care should be taken to maintain three points of contact. The area for loading / unloading should be free of slip and trip hazards with good level surfaces.

11.3 Loading / Unloading vehicles
The above requirements should be applied with regard to loading / unloading vehicles. Access to the load bed should only be permitted via a fixed, secured or footed ladder.

Fall prevention measures will not be required for small enclosed vehicles (e.g. Luton van) for short duration (<5 minutes), low risk deliveries.

All loading and unloading of delivery vehicles should be carried out in a designated area, away from pedestrians and other persons not involved with the operation. Where this is not possible these activities should be carried out within a temporary exclusion zone.
Loading / unloading vehicles should take place on level ground. Loads should be:
- Of suitable height and width for the vehicle and road conditions on site
- Secured to prevent movement
- Evenly loaded and distributed to keep the centre of gravity as low as possible and to prevent stresses on vehicle structures
- Positioned on vehicles and transported so that they do not adversely affect vehicle stability
- Checked to ensure that they will not fall uncontrollably when restraints are removed during unloading

No vehicle should be overloaded.
11.4 Lifting operations
All delivery vehicles unloading equipment must comply with the requirements of the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) and Provision and Use of Work Equipment Regulations 1998 (PUWER), and be maintained in such a condition in order that they do not present an unacceptable risk. Maintenance records, test certificates or other forms of legal documentation should be requested by the project management team before operations are allowed to proceed.

Any loading / unloading operation that requires a lifting type procedure must be accompanied by a suitable and adequate lift plan. This may include but not be restricted to Hiab use, forklift use etc.

Only competent and trained operatives are allowed to operate lifting equipment. Training should not only include how to operate the equipment, but also how to sling the load.

Where deliveries are unloaded via any form of lifting equipment, they are under no circumstances to over-sail workforce or public accessible areas.

Lorry loaders should be operated on firm, level ground with their stabilisers fully extended and the parking brake applied when loading and unloading.

11.5 Overturning / Tipping loads
Ground conditions on site should be suitable for all operations and in particular for operations involving tipping of loads.

Consideration should be given to the following before tipping of any load takes place to reduce the risk of overturning:
- Tipping on a slope
- Distribution of the load
- Speed of tipping
- Use of a Banksman
- Action in case of a sticking load
- Positioning of the tractor unit and trailer in line when an articulated lorry is used

11.6 Hazardous substances
Any hazardous substance / material should be identified and the relevant signage applied to the vehicle. The substance / material must be stored in an appropriate container and secured to the vehicle to prevent any movement. A Material Safety Data Sheet (MSDS) must accompany any material that has hazardous properties. The MSDS gives details on how the substance / material should be handled, stored and disposed of.

11.7 Environment
Any waste created by any loading / unloading activity, e.g. packaging and waste materials, must be disposed of according to the site requirements, either on site or removed from site and disposed of by the correct means.
12.0 Links

Berkeley Group
www.berkeleygroup.co.uk

Road Haulage Association
www.rha.uk.net

Health and Safety Executive
www.hse.gov.uk

CLOCS (Construction Logistics and Cycle Safety - Looking out for vulnerable road users)
www.clocs.org.uk

Construction Logistics Plans
www.TfL.gov.uk

Contacts

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