The Delivery Hub health, safety and environment
Raising the bar 17
Plant and vehicle marshalls

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## Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>3</td>
</tr>
<tr>
<td>Background</td>
<td>3</td>
</tr>
<tr>
<td>Definition of a plant and vehicle marshall</td>
<td>3</td>
</tr>
<tr>
<td>Minimum requirement</td>
<td>3</td>
</tr>
<tr>
<td>Organise</td>
<td>5</td>
</tr>
<tr>
<td>Control and monitor</td>
<td>5</td>
</tr>
<tr>
<td>Appendix 1</td>
<td>6</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>6</td>
</tr>
</tbody>
</table>
Objective
The objective of this raising the bar document is to improve the control of plant and vehicle movements.

Background
Why this is important to you
Over the last few years there have been significant numbers of injuries to workers, sometimes fatal on projects caused by the interface between people and plant or vehicles.

Health and Safety Executive statistics tell us that each year approximately ten people die as a result of being struck by moving plant in our industry, in addition there are hundreds of preventable incidents and injuries.

Fatality
A vehicle marshal was struck and run over by a reversing dozer. Following heavy rainfall a haul road had to be reinstated which entailed changing the one way circuit to a two way circuit. Control of vehicles was needed so a vehicle marshal was used. The vehicle marshal had been in a position of safety whilst carrying out the duties but at one point he was positioned between two reversing vehicles.

Hazards and risks
- People being run over, crushed or struck by plant or vehicles
- People being struck by something falling from plant or vehicles
- Plant or vehicles overturning
- Personnel entering exclusion zones

Definition of a plant and vehicle marshall (PVM)
A plant and vehicle marshal is anyone who has been trained and appointed to control the movement of plant and vehicles on site.

This role is not to be confused with that of slinger / signaler, which is concerned with the slinging and lifting of loads. This is an entirely different skill and requires a different training program. See Appendix 1 (Competency and training) and Appendix 2 (Role and appointments).

Minimum requirements
The following considerations should be considered as minimum requirements when deploying plant and vehicle marshals.

Plan
Are plant and vehicle marshalls required?
Every site where there is an opportunity for interfaces between people and plant must develop a logistics and traffic management plan (LTMP)

The decision whether or not to use plant and vehicle marshals as part of the plan must always be through the higher hierarchy of control method.

Once a decision has been reached to use a marshal then strict controls must be in place primarily for the safety of the marshal as they are now in the high risk category.
Identification on site

Visits to the area where work is to take place must be carried out to enable effective planning and to eliminate if possible the need for vehicle marshals. This visit will also enable the planning of traffic routes and controls.

Purpose of logistics and traffic management plan

A plant and vehicle management plans will:

- Eliminate the need for plant and vehicle marshals. Where this is not possible then minimise the use of vehicle marshals and identify their position of safety
- Clearly show pedestrian routes and crossing points
- Provide substantial means of separating people and plant such as physical barriers
- Eliminate the need for people to be within the immediate proximity of plant through the design, planning and sequencing of the works and transport routes such as separated areas
- Be clear and descriptive, and include accurate drawings/sketches
- Be communicated to all stakeholders with copies given to all trained vehicle marshals
- Be updated regularly to identify temporary arrangements
- Display designated traffic routes, access and egress points, one way circuits and turning areas and the signage they require including speed limits
- Display emergency access routes and the positions of emergency facilities such as fire hydrants drainage and all overhead and underground services
- Be displayed in prominent positions such as the main entrance, site access points, induction rooms and canteen and at the point of work.

Vehicle marshals must wear identifiable clothing that clearly shows their role on site.

Plant and equipment

Consideration in the planning stage must be given to the many aids available on the market such as:

- Plant with 360 all round visibility mirrors
- CCTV
- Vehicle collision avoidance systems VCAS effective at all times
- Personal proximity warning devices
- Exclusion and controlled access zones around operating plant
Organise

Briefings

• Briefings should include RAMS, adjacent activities, designated routes for both vehicle and pedestrians
• Particular attention must be made to address adverse environmental conditions (such as hours of darkness, inclement weather)
• Ensure the plan is briefed to all involved in the activity
• Provide safe place for vehicle marshal
• Ensure above all that the vehicle marshal is clear on his role for that work area

Control and monitor

• Nothing stays the same during any work activity. Regular monitoring and control must be carried out during the activity involving vehicle marshals
• Monitor the implementation and review if necessary ensuring everyone is re-briefed
• Any change to the methodology of the work must be communicated to the original planners before changes are made to ensure the vehicle and pedestrian interface is not compromised
• Should there be a change to the agreed controls then these must be communicated to the vehicle marshal. Re-briefings must be given on the new controls and RAMS

Legislation and references

• Construction (Design and Management ) Regulations 2007
• Regulation 26 – Safe places of work
• Regulation 36 – Traffic routes
• Regulation 37 – Vehicles
• Regulation 40 – Emergency routes and exits
• HS(G)144 (The safe use of vehicles on a construction site)
Appendix 1

Competency and training

Plant and vehicle marshall competency
- Must have good communication skills
- Ability to use hand signals
- Must have the capability to direct plant and vehicle movements safely
- Must understand and recognize where to be safely positioned
- Ability to understand and recognise the hazards of working around plant and vehicles
- Know the work area they have designated responsibility for
- Have undergone suitable and assessed training
- Must have at least three years experience in a construction environment

Plant and vehicle marshall training aims
- To provide plant and vehicle marshall with the competencies required to safely control the direction / maneuvering of plant and vehicles
- To provide information on the hazards and risks associated with plant and vehicle marshaling
- To demonstrate the code of signals to be used to marshal plant and vehicles and demonstrate effective communication

Appendix 2

Role and appointments

Role of plant and vehicle marshall
- Assist plant and vehicle drivers to safely manoeuvre and reverse their plant or vehicles
- Prevent pedestrians from putting themselves at risk whilst a vehicle is being manoeuvred
- Direct plant or vehicles to prevent injury to people, damage to property or materials, and stop work if deemed unsafe.
- Always position themselves in a place of safety
- Maintain eye contact with the plant or vehicle and give clear concise signals/instructions

Plant and vehicle marshall appointments
- Every site must identify and appoint a plant and vehicle coordinator
- Responsible for the development and implementation of the logistics and traffic management plan
- Plant and vehicle marshall’s should be formally appointed after suitable training, normally by the site project manager

Note
There is currently a plant and vehicle marshall course run by the CITB, through construction skills (this may be soon become a category on the CPCS card).