



**SUPPLY CHAIN SAFETY  
LEADERSHIP GROUP**

**Highways Safety Hub**  
**Raising the Bar 36**  
Lost Loads

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## Objective

This Raising the Bar Guidance Document provides practical guidance on how to comply with the Supply Chain Safety Leadership Council Common Intent Document on Lost Loads as well as to standardise a common framework for suppliers to work towards.

## Scope

This Raising the Bar Guidance Document applies to all suppliers and their employees working on Highways England contracts.

Our vision as Highways England suppliers is to eliminate the risk of Lost Loads on the Highways England network through challenging of industry norms and pioneering a new approach in the way transportation of loads is designed, planned and carried out as part of construction and operation activities.

## Background

Lost Loads continue to be a significant health and safety hazard within our and every industry involving transportation, loading and unloading of materials, tools and equipment.

Across suppliers and maintainers to Highways England, there have been numerous incidents in recent years involving lost loads on the strategic road network, putting the travelling public and workforce at risk of significant injury. The most significant lost load incidents in the United Kingdom have tragically resulted in fatalities and life changing injuries to road users and pedestrians.

Routinely, the root cause of these incidents includes poor planning, unsuitable vehicle selection, lack of operator training, no or inadequate load securing, poor condition of load securing equipment, poor industry norms and a lack of appreciation of the risks and responsibilities involved and regarding load security.

## Governance Requirements

There is a clear expectation within the Supply Chain Safety Leadership Group Common Intent Document on Lost Loads that where a greater level of control cannot be achieved, the measures to be put in place to provide protection (e.g. engineering controls, trained operators, supervisors, vehicle specification) will be signed off by a Senior (off-site) Representative for the Principal Contractor/Maintainer each and every time this is required (not for a project or section of works as a whole), to confirm their understanding of the risks and all other mitigation measures have been considered and exhausted.

We will apply a robust governance process that challenges the need to progress between levels in the hierarchy of control and document decisions taken - applying robust leadership off-site and on-site to provide positive support and hold people to account where a higher level of control isn't applied. This information will also be used to learn lessons for future projects.

## Minimum Requirements

The following elements are mandatory requirements and suppliers shall ensure these elements are applied fully whilst travelling and working on the strategic road network.

Principal contractors and contractors must demonstrate high standards of fleet & driver compliance by evidencing independent audits/industry standards accreditations in addition to any regulatory licences required.

Fleet operators must hold or achieve, within 6 months of commencement of works on behalf of Highways England schemes/projects, Then adhere to and maintain either:

- 1, The Fleet Operator Recognition Scheme (FORS) Bronze level
- 2, The Logistics UK Van Excellence scheme – for van and light commercial vehicle operators only
- 3, An annual transport compliance audit by a reputable independent road transport organisation for example:  
Logistics UK, Road Haulage Association, Chartered institute of Transport and Logistics, Lloyd Morgan Group

- ✓ All schemes / projects must have an appointed Transport and Logistics coordinator
- ✓ Compliance with vehicle specifications as set out in RTB1
- ✓ Securing systems must conform with EN-12195-2
- ✓ All LCV drivers must have their licence checked to ensure validity for vehicle use
- ✓ All LCV Driving license should be subject to DVLA checks every 6 months
- ✓ Drivers with 9 points or more must have suitable training or other interventions to mitigate risk.
- ✓ Drivers must receive an induction covering the basic requirements and responsibilities when using/driving a commercial vehicle
- ✓ All drivers must complete an approved internal/external safe vehicle loading training course.

## Guidance – Applying the Hierarchy of Controls

### Overview

**The following guidance is written with the expectation that it represents best practice and as such must be followed unless a better local solution has been devised to meet the overall objective.**

The guidance follows the Hierarchy of Controls and assumes that we will first eliminate the hazard posed by a lost load by designing and planning to avoid it. Where this is not possible, we will seek to isolate it through the introduction of transportation, loading and unloading solutions and only when this is shown to not be possible will we rely on engineering controls.

Nationally within historic and ongoing construction and maintenance activities on the strategic road network lost load risk and realisation can be mainly apportioned to the use of flat-bed Light Commercial Vehicle s (LCV) used for transportation of tools, equipment and materials (loads) to/from work compounds and maintenance depots. This Raising the Bar document will focus on key controls for LCV's, operators and how loads are planned and distributed, it will also cover enhanced controls for the loading/unloading of plant items.

Data relating to loads anticipated to require movement for construction/maintenance activities will be collated by individual project/schemes, along with comprehensive detail on vehicle types currently used and competence of operators. This review will enable an initial analysis and assessment to be made on lost load risk and enable a thorough review of the points highlighted within this document to enable a step change in lost load risk to be realised.

## 1. Elimination

### Accurate and robust capture of data

Projects/schemes will capture and analyse Highways load transportation data including the need to transport loads, their types, along with common vehicles and applicable competency provisions to ensure elimination controls are reflective of real-life risk and enable focused embedment from the outset.

Our approach will enable a step change in lost load risk. We will also ensure any solutions defined do not introduce other uncontrolled hazards and risks to the industry.

At the design stage for any construction schemes the appointed Principal Designer must ensure, the following considerations are taken into account to eliminate the need for LCV transportation: -

- ✓ Defining within the design if off site manufacturing or alternative build/maintenance processes can be incorporated to remove the need for load transportation.
- ✓ Introduction of solutions on new schemes that do not require ongoing vegetation maintenance.
- ✓ Undertake an assessment of the working space required to construct/maintain project/scheme whilst ensuring suitable space is available for storage of materials, tools and equipment to eliminate the need for local distribution of loads.
- ✓ Ensure key residual load risks are recorded within the scheme risk register, along with suitable & sufficient control measures.

### Eliminating the need to transport loads.

We will always seek to eliminate the need to transport loads through using innovative solutions including digital enhancements, challenging existing construction/maintenance methodology to enable smarter ways of working.

We will ensure designing and planning processes fully capture lost load risk and ensure transportation is embodied at all risk review stages (Design /Construction/Maintenance). At scheme/project level we will introduce Transport and Logistics coordinators to further prioritise any residual risks and drive for continued focus on this fatal risk.

At the construction/maintenance planning stages the movement of Loads all projects/schemes must ensure the following considerations are in place to eliminate need to transport loads and mitigation of lost load risk from the outset: -

- ✓ Challenging designs or process methodology to eliminate the need for load transportation.
- ✓ Adopting digital technology to enable visibility of works to further highlight issue areas and define additional technological solutions.
- ✓ Identifying if loads can be distributed to work locations as bulk/consolidated loads via HGV's.
- ✓ Introduction of a competent Transport and Logistics coordinator to plan and organise load movements.

## 2. Isolation

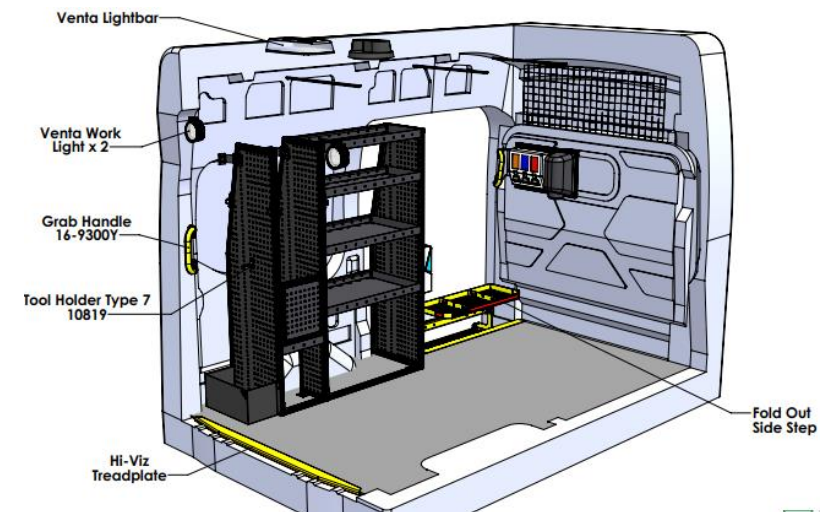
Where we cannot eliminate the hazard, we must seek to isolate it through the introduction of transportation, loading and unloading solutions that eliminate the risk of lost loads through their enclosed nature, with competent operators, reducing multiple deliveries and the carriage of unnecessary equipment on the strategic road network.

Wherever possible and as the safest option whenever elimination of loads can't be achieved loads that need to be transported via LCV's should be in an enclosed vehicle to isolate the risk of loads being lost on the strategic road network.

Operators must have sufficient instruction and training relating to loading/unloading and securing of loads. Whenever possible loads should be loaded/unloaded by mechanical means, where this is not practicable/achievable operators must receive manual handling and work at height training as appropriate.

Project/scheme teams in collaboration with the Transport and Logistics coordinator must review loads required for transportation, identify if they can be delivered directly to the work location, wherever possible identify and reduce the number of journeys required and identify the best possible solution to ensure lost loads are not realised.

Load booking in/out and just in time delivery systems should be established where practicable and the use of exact location delivery technology such as what3words adopted



### 3. Transportation Hierarchy

The hierarchy below sets out the approach for selection and use of vehicles for load transportation on the Strategic Road Network: -

Hierarchy	Description	Risk Control Measures
<b>Eliminate (Enclosed Vehicles)</b>	Remove the risk	<ul style="list-style-type: none"> <li>➤ Fully enclosed LCV (Panel LCV) with suitable racking for tools/equipment and suitable lashing points for low level load security.</li> <li>➤ With the exception of welfare vehicles all must have headboard in accordance to EN 12642 able to withstand a force corresponding to 40% of the vehicle payload</li> <li>➤ Training in load security (if carrying loads)</li> <li>➤ Risk control measures to prevent injury whilst loading/unloading loads</li> <li>➤ Transport/Logistics coordinator appointed (all levels)</li> </ul>
<b>Minimise (Purpose Built Vehicles)</b>	Minimise the risk	<ul style="list-style-type: none"> <li>➤ Purpose built flat-bed LCV with proprietary system for load security</li> <li>➤ Purpose built flat-bed LCV with cage option to prevent lost loads</li> <li>➤ Identifying if loads can be transported into closures or at off peak hours to reduce public/worker risk.</li> <li>➤ No loads to protrude outside the load bed</li> <li>➤ Mandatory operator training in load security</li> <li>➤ At design stage vehicle must be assessed to confirm its capability to carry intended loads</li> <li>➤ Risk control measures to prevent injury whilst loading/unloading loads</li> </ul>
<b>Mitigation (Standard Flat Bed LCV)</b>	Mitigate the risk	<ul style="list-style-type: none"> <li>➤ Offsite Director Sign Off required</li> <li>➤ Flat-Bed LCV for loads that cannot be safely transported by enclosed/purpose built or caged LCV's.</li> <li>➤ Mandatory operator training in load security</li> <li>➤ No loads to protrude on or over the sides of the bed of vehicle, Loads permitted to extend over headboard by 1 meter</li> <li>➤ Edge protection mandatory if Operator/Loader/Unloader needs to access bed of vehicle</li> <li>➤ Enhanced risk control measures to include specific items for carriage, their shape, weight, centre of gravity and securing equipment required</li> <li>➤ Risk control measures to prevent injury and risk to road user whilst loading/unloading loads</li> <li>➤ Mandatory vehicle load weight indicators or project/scheme weighbridge</li> </ul>

#### 4. Transportation Hierarchy Examples

The hierarchy below sets out the approach for selection and use of vehicles for load transportation on the Strategic Road Network: -

##### Eliminate

Fully Enclosed LCV



\*Note these vehicles can be ordered to accommodate upto 4 passengers

##### Minimise

Purpose built LCV



##### Mitigation

Standard Flat Bed LCV





## 5. Engineering Controls applied via safe working practices

Where we can't isolate the hazard, we will provide robust engineering controls these will include (but are not limited to) The provision of: -

### Minimum Specifications for Vehicles

Minimum specifications for vehicles used to transport loads on the strategic road network must comply with RtB 1 – Plant and Equipment Standards.

Vehicles Must have:

- ✓ A minimum of two amber beacons and comply with the relevant sections of the Traffic Signs Manual, Chapter 8, part 2
- ✓ A reversing alarm (Gross Vehicle Weight exceeding 2.2ton)
- ✓ Rear park proximity sensors
- ✓ Fall/edge protection on open backed Dropside LCV's
- ✓ Load rated load anchorage points
- ✓ Panel van should have suitable load security such as racking
- ✓ All vehicles must be provided with adequate load security equipment relevant to the vehicle and load such as sheets, nets, straps, chocks, chains, ratchet straps and adequate provision for storage of equipment carried.

### Preventing Overloading

Projects/Schemes must have provision of mechanical devices to identify vehicle/axle overloads, one or more of the following devices must be in place to ensure vehicles are not overloaded when carrying loads on the strategic road network: -

#### I. Vehicle installed mechanical devices

Vehicles with a Gross Vehicle Weight (GVW) between 2.6t and 3.5t should be fitted with an indicator or measuring device to alert the driver to the weight of the vehicle and any load or burden carried on it.

The device should be calibrated and indicate or measure both individual axle weights and GVW.

The device should clearly alert the driver if the vehicle, or one or more axles is overloaded.



## II. Fixed Weighbridges

Weighbridges must be capable of weighing individual axles and gross vehicle weight/gross train weight.

The weighbridge must have a digital display showing the axle & gross weights, have the facility to record registration numbers and produce a ticket for the driver.

The vehicle weighing data must be available for download manually or via Wi-Fi transfer to a PC for regular review

The weighbridge must be sited with an appropriate approach lane to funnel all commercial vehicles over it for weighing prior to exiting the compound.

There must be an alternate controlled exit for abnormal loads in scope of Special Types General Order regulations



## III. Portable Weighbridges

Every effort should be made during the planning and design of the works phase to ensure every load that is required to be delivered to site is being transported by the most suitable vehicle and there is therefore no risk of overloading.

However, as a means of testing the plan, on smaller projects and sites where a permanent fixed weigh bridge installation is not practical or viable, contractors should regularly deploy calibrated portable weigh scales to spot check vehicles leaving site to ensure no vehicle leaves the site / compound overloaded.



### Enhanced SSoW for Lost Load Prevention

A Safe System of Work (SSoW) specifically focussing on safe transportation of loads, with stringent controls on all aspects of loading, transporting and off-loading of any article must be developed and communicated prior to any loads being transported on projects/schemes. The SSoW must incorporate a systematic examination of load movement to identify all hazards and define safe methods to ensure elimination and minimisation of identified hazards/risks. The SSoW must follow analysis must follow the following 5 steps as a minimum: -

- 1 - Assess the Task
- 2 - Identify the Hazards
- 3 - Define safe methods
- 4 - Implement the system
- 5 - Monitor the system

Assessing the task and identifying the hazards must cover the following areas as a minimum requirement: -

- ✓ Vehicle type selection
- ✓ Load handling/securing arrangements
- ✓ Loading/unloading
- ✓ Driver fatigue
- ✓ Manual handling
- ✓ Slips, Trips & Falls
- ✓ People plant interface
- ✓ Trailer coupling/uncoupling
- ✓ Emergency arrangements
- ✓ Entering works areas/parking on hard shoulders/verges/ERA's

### Loading and Unloading Solutions for LCV's

Anything that is transported on or in a vehicle must be adequately secured so it doesn't move relative to the vehicle whenever the vehicle changes speed or direction.

This includes roundabouts, long corners, slip roads, "S" bends and under braking. Changing speed and direction at the same time exaggerates the issue and needs to be a factor included in training and risk control.

Those in control and supervising of loading/unloading and securing loads must have received a recognised training course with a minimum duration of 3.5 hours that is designed to instruct candidates on how to assess, position and secure loads, plan routes and implications of poor management.

The course content must cover the following 12 points as a minimum: -

1. Legislation
2. Principles of load safety
3. Risk assessments
4. Types of load
5. Methods of securing & load restraints
6. Safe loading and unloading
7. Load positioning:
8. Load security:
9. Vehicle weights, payload and overloading:
10. Route planning
11. Working at Height
12. Practical exercise and assessment in securing loads

Examples of external course providers below: -

<https://nlttd.co.uk/course/strapping-load-securing/>

## Loading and Unloading Solutions for Plant

Loading/unloading activities involving plant and large loads within construction and operations locations must follow the requirements set out below.

All plant loading/unloading must be coordinated by a fully trained 'competent person' - The competent person is an individual tasked with the safe loading, transport and unloading of plant.

- ✓ Whilst they are not directly involved in the physical operation of the item of plant, they oversee the task ensuring that the load is secured before departure.
- ✓ The site/scheme lead must ensure that the requirements for the delivery/collection of plant have been communicated to suppliers in advance of all deliveries and collections taking place.
- ✓ The plant supplier/contractor must liaise directly with the appointed competent person the day before any item of plant is delivered/collected to confirm the location, time and discuss any specific arrangements required.
- ✓ Loading/unloading must only take place in designated areas. Low loader drivers must be briefed on the need to familiarise themselves with the area.
- ✓ On smart motorways a specific risk assessment must have been completed to establish if a night delivery under a lane closure is the safest option.

## Loading / Unloading

- ✓ Deliveries/ collections are only permitted if there is sufficient space to allow safe access, loading/unloading and a physical exclusion zone to be established –
- ✓ Site access/ egress points must be a minimum of 50m wide
- ✓ In areas with no space restrictions, a minimum exclusion zone of 3m should be established either side of the low loader. Ideally the exclusion zone should equal the height of the load.
- ✓ On smart motorways a minimum 1.2m exclusion zone should be established (from temporary vehicle restraint barriers)

## Signs, instructions and administrative controls

In the event that a greater level of control cannot be achieved, the measures to be put in place to provide protection (e.g. engineering controls, trained operators, supervisors, vehicle specification) will be signed off by a Senior (off-site) Representative for the Principal Contractor/Maintainer each and every time this is required (not for a project or section of works as a whole), to confirm their understanding of the risks and all other mitigation measures have been considered and exhausted.

We will apply a robust governance process that challenges the need to progress between levels in the hierarchy of control and document decisions taken - applying robust leadership off-site and on-site to provide positive support and hold people to account where a higher level of control isn't applied. This information will also be used to learn lessons for future projects.

## People Requirements

### Organisational

- ✓ Ensure road transport safety is upheld through application of HE & principal contractor policy and procedures.
- ✓ Delivery partners must have an appointed Transport and Logistics coordinator
- ✓ All LCV drivers must have their licence checked to ensure validity for vehicle use.
- ✓ All LCV vehicle drivers must participate in mandatory and random drug & alcohol testing.
- ✓ All LCV Driving license should be subject to DVLA checks every 6 months
- ✓ Drivers with 9 points or more must have suitable training or other interventions to mitigate risk.
- ✓ Drivers must receive an induction covering the basic requirements and responsibilities when using/driving a commercial vehicle
- ✓ Suitable & sufficient risk assessments must be in place and briefed for all transportation, loading and unloading activities.
- ✓ Daily/nightly activity briefings must be relayed to those involved with transportation
- ✓ All drivers must complete an approved internal/external safe vehicle loading training course. e.g <https://nltltd.co.uk/course/strapping-load-securing/>
- ✓ LCV pre-use checklist to be completed by LCV operators with employers maintain copies of completion.

### Responsibilities of Personnel

- ✓ Follow training provided to eliminate lost loads from the strategic road network.
- ✓ Ensure road transport safety is upheld through application of HE & principal contractor policy and procedures.
- ✓ Complete and record vehicle pre use inspections.
- ✓ Complete load securing equipment pre use inspections.
- ✓ Ensure risk assessments and work plans are followed and works cease if there are any changes or unaccounted risks.
- ✓ Monitor outputs from weighing devices to ensure vehicles are not overloaded.
- ✓ Report any near misses whilst operating on the strategic road network.

## Emergency Arrangements

### Incident Response

In the event of a lost load an Emergency Plan created by the Principal Contractor should detail contacts for the emergency services, Regional and National control centers as applicable. The plan should identify action that site personnel are expected to take. This should include consideration of their own and the travelling public's safety.

### Reporting and Recording

All Lost load incidents must be reported to the Highways England Project manager or Sponsor and investigated in accordance with their potential severity.

All Lost loads must be logged onto Highways England AIRSweb incident reporting system in line with the requirements contained within GG128.

### Incident Investigation

It is mandatory for Lost Load incident investigations to follow the requirements of GG128.

## References

The requirements associated with Plant and Vehicle Specifications, Transport and Logistic Planning, loading, and unloading of materials, plant and equipment are covered by separate Raising the Bar Documents

- › RTB 01 - Plant and Equipment
- › RTB 20 - Transport and Logistics
- › RTB 25 – Loading and Unloading Vehicles
- › RTB 35 - Loading and Unloading Mobile Plant

### Further Industry Guidance

<https://assets.highwaysengland.co.uk/Commercial+Vehicles/Ratchet+Strap+Leaflet.pdf>

<https://www.hse.gov.uk/logistics/load-security.htm>

<https://www.gov.uk/government/publications/load-securing-vehicle-operator-guidance/load-securing-vehicle-operator-guidance>