

Moving and Handling Construction Materials

Open Government status

Fully Open

Target audience

FOD Construction Inspectors (Bands 0-4)

Contents

[Summary](#)

[Introduction](#)

[Action](#)

[Background](#)

[Organisation](#)

[Contacts](#)

[Appendix 1: Step 1: On-Site Control](#)

[Appendix 2: Step 2: Site Management Arrangements including pre-delivery](#)

[Appendix 3: Step 3: Off-site management arrangements specifically pre-construction](#)

Summary

This OG provides a structured approach to the inspection and enforcement of construction activities involving the moving and handling of construction materials. It sets out a clear intervention strategy through 3 key stages of a construction project 'Design, Delivery and Movement'.

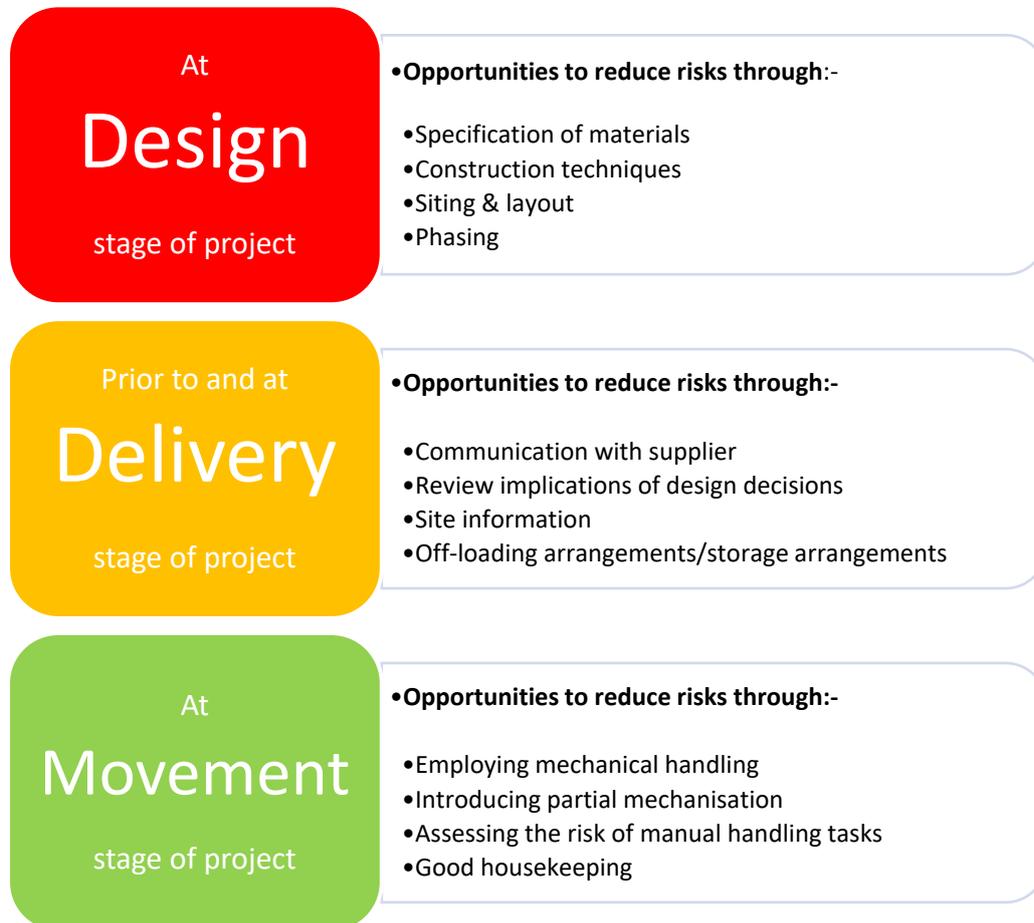
Introduction

Musculoskeletal Disorders (MSDs) are a priority topic for HSE and its Construction Division (CD). This guidance assists Inspectors by providing a structured approach to the inspection of moving and handling construction materials. Relevant guidance to assist with decision making when considering enforcement action is signposted. The guidance sets out the progressive approach to the inspection of moving and handling construction materials and identifies key considerations at each stage of inspection.

Action

This guidance sets out the approach Inspectors should take when inspecting issues related to moving and handling construction materials and associated activities. The development of this OG has considered industry perception and understanding of the term MSD. It is recognised that MSD is a poorly understood term in the industry and there is a lot of crossover between the immediate accidents reported and the recorded longer-term illnesses. The use of the term '**materials handling**' provides a more flexible approach. This approach also allows for the consideration of wider issues during the journey of the material from design to installation. Reference to the term '**materials**' in this guidance is intended to cover all construction products that need to be moved in order to progress a project.

Measures used to eliminate or reduce risks associated with the handling of materials can vary depending upon where they are in the 'site journey', that is **Design, Delivery or Movement**. It is recognised that one approach does not fit all situations. Instead, relevant risks need to be considered at each of the following stages:



Inspectors should focus on the management of risk during design, pre-delivery, delivery, storage, movement and installation / use of these products.

Attention should be paid to the following:

- **Lifting, carrying and moving (pushing / pulling)** risks and compliance with the Manual Handling Operations Regulations 1992 (MHOR).
- **Other risks or contributory factors** associated with the site journey of the material such as:
 - The decisions made by off-site dutyholders
 - Communications and arrangements prior to delivery of materials to site
 - Lifting operations using cranes
 - Workplace transport for moving materials
 - Falls of persons or materials from height while carrying objects up ladders

- A lack of good order which limits the usability of pallet trucks or introduces tripping hazards while carrying things
- Co-ordination with other site users / contractors

Assessment of compliance

HSE interventions generally commence on-site during the construction phase of a project through inspection / investigation activities. Identification of significant on-site failings should be addressed and tracked back through the journey of the material, movement to delivery to design as briefly outlined below:

Step 1: Assessing On-Site Control

Inspectors should initially focus on assessing the control measures in place for the movement of materials. Information about how the risks associated with the most common tasks are set out in HSE guidance, '[Construction manual handling: Specific tasks](#)'. Further detail can be found in [Appendix 1](#).

Step 2: Site Management Arrangements including pre-delivery

Where relevant, Inspectors should track back to the delivery of materials stage. This will identify both the on-site and the pre-delivery arrangements. Consequently, where delivery related non-compliance has been identified, consideration should be given to identifying and addressing any underlying causes. Further information on these is contained in [Appendix 2](#).

Step 3: Off-site Management Arrangements specifically pre-construction

Where evidence identifies potential pre-construction failings, Inspectors should track back to the pre-construction / design stage dutyholders, that is, the client, principal designer or designer. Further information on the approach to take is contained within [Appendix 3](#)

Background

MSDs are a priority topic for HSE and CD, they currently account for nearly 60% of all work-related ill health in construction.

Organisation

There are no special organisational requirements.

Resources

NB: The documents and webpages signposted throughout this document are provided as a source of further information. External resources references industry expectations are provided for information purposes only and may not reflect current legislation.

Lifting and Carrying Control

The main guidance to be aware of is:

Risk assessment: Current enforcement lines are heavily tied into the MAC / RAPP tool.

- [Musculoskeletal disorders - HSE](#)
- [Manual handling assessment charts \(the MAC tool\)](#)
- [Risk assessment of pushing and pulling \(RAPP\) tool](#)
- [Full manual handling risk assessment: Examples of assessment checklists \(hse.gov.uk\)](#)

Control: The following contain important information about implementing MHOR in practice. Current enforcement lines are heavily tied into the MAC / RAPP tool (see below also)

- [Manual Handling Operations Regulations 1992: Guidance on Regulations L23](#)
- The general principles that should be applied are contained within [‘Construction physical ill health risks: Manual handling’](#).

Concrete Products: Specific information is contained on the HSE website in relation to:

- [Construction manual handling: Kerbs and paving](#)
- [Construction manual handling: Blocks and masonry units](#)

Industry information on [kerbs and flags](#) also contains details of common product weights.

Plasterboard: Specific information regarding handling is contained on the HSE website at [Construction manual handling: Plasterboard installation](#). Storage of boards needs to be considered and manufacturers will generally recommend laying flat while in store. Where this is not possible other risks need to be considered; [HSE safety alert](#) provides further guidance.

Glass and Glazing: The [Glass and Glazing Federation](#) (GGF) have produced a numbers of guidance documents relating to the safe handling, transportation and installation of glass products. These documents primarily focus on glass (frameless double-glazed units mostly) rather than Glazed Frames / Units; however, the principles will be similar.

Contacts

Construction Sector: Regulatory Support Unit

Appendices

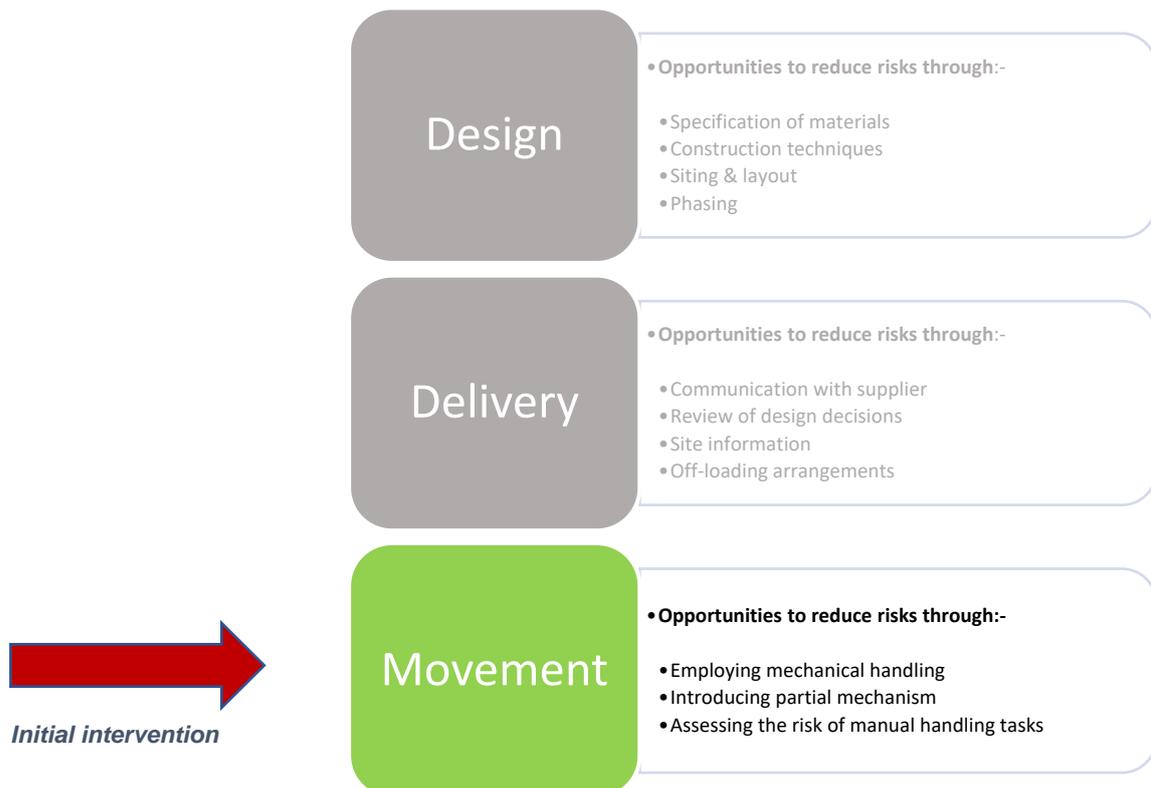
1. [Step 1: On-Site Control](#)
2. [Step 2: Site Management Arrangements including pre-delivery](#)
3. [Step 3: Off-site Management Arrangements specifically pre-construction](#)

Appendix 1: Step 1: On-Site Control

Movement

The '**movement**' stage covers the movement and installation of the construction materials at site. While this is during the construction phase when a project may be nearing its end, it is generally the stage at which HSE Inspectors will initiate an intervention. By this stage, changes such as materials, locations, quantities and so on are limited.

Arrangements for moving materials from the point of delivery to the point of storage/installation will fall under the Construction (Design and Management) Regulations 2015 (CDM 2015), the Manual Handling Operations Regulations 1992 (MHOR), the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER), The Provision and Use of Work Equipment Regulations 1998 (PUWER) and the Management of Health and Safety at Work Regulations 1999 (MHSW). Dependent upon the situation, you will need to make an assessment as to the most appropriate legislation for the issue which requires addressing.



Assessing on-site control:

Inspectors should initially focus on assessing the control measures in place for a specific task, for example, how are the glazing panels being installed? What action has been taken to **prevent** risks before work starts to **control** the residual risks? How have the operatives been **trained** / informed / understood the necessary control measures?

The assessment of on-site control needs to follow a progressive approach. Inspectors will generally start at the task level to consider how the dutyholder has:

- Assessed the risk of manual handling tasks;
- Introduced partial mechanisation;
- Employed mechanical handling.

Determining risk:

Enforcement in relation to MOHR is based upon the application of the following tools:

- Lifting, carrying and team lifting - [Manual Handling Assessment Chart Tool \(MAC tool\)](#)
- Pushing and pulling – [Risk assessment of pushing and pulling \(RAPP tool\)](#)

For **lifting and carrying**, it is important to note that in general the consequence of MSD risks is considered as **significant**. The risk is only serious where the load weight / frequency enters the purple zone on the MAC. A specialist should be consulted if there is any doubt about whether the conditions found are enough to give rise to a “risk of serious personal injury”.

The [assess, control and review model](#) provides an outline of how to control the associated risks and why.

The [Inspector training material for inspection of musculoskeletal disorders](#) provides guidance in the use and application of the MAC and RAPP Tools. The training package includes construction specific training material. Section 6 of the document provides a link to the ‘Inspectors Guide’. The Inspectors guide helps to identify matters of evident concern and decide on the Initial Enforcement Expectations for manual handling

Other regulations: Moving and handling materials may also introduce other risks including:

- those created through the process of the use of plant and equipment,
- where the manual handling operation is giving rise to associated safety risks, for example, carrying heavy / awkward items up a ladder without being able to maintain secure hand contact.

[Appendix 2](#), ‘**Delivery**’ provides further information on plant and traffic related issues.

‘Common’ construction materials:

The following table ([Table 1](#): ‘Common’ construction materials) provides examples of the size, weight, and number of lifts per hour for ‘common’ construction products. The load weight / frequency graph provided in the MAC Tool has been used to produce an **indicative ‘risk band’** for each product listed.

The ‘risk bands’ are the first point that Inspectors should consider when inspecting activities involving moving and handling construction materials.

	Very high level of risk.
	High level of risk.
	Medium level of risk.
	Low level of risk.

The values in the table below are provided for guidance only. Prior to taking enforcement action you are advised to establish the specific factors for the materials and tasks involved in the particular circumstances, use the [MAC Tool](#) to investigate the risks further. It may be helpful to take video footage and / or photographs to support and assist the enforcement decision-making process.

NB: the risk bands provided in this table relate to 'Lifting'. Please refer to the 'Carrying' section of the [MAC Tool](#) for information relating to carrying.

'Lifting Frequency' are estimates – this will vary from site to site.

Table 1: 'Common' construction materials – weights / lift frequencies and risk bands for single person / team lifts:

Product	Dimensions mm	Typical weight Kgs	Lifting Frequency	Risk band			
				Single person	Team of 2*	Team of 3*	Team of 4*
Bag of cement	Standard	25	2 – 5 lifts per hour				
Concrete paving slabs NB: only when full weight being supported	600x600x63	52	6 – 10 lifts per hour				
Blocks 7.3N/mm ²	440x100x21 5	18.5	30 lifts per hour				
Blocks 7.3N/mm ²	440x140x21 5	26	30 lifts per hour				
Blocks 7.3N/mm ²	440x190x21 5	35	30 lifts per hour				

Plasterboard 900mm wide	2400 – 2700	19 – 24	30 lifts per hour				
Plasterboard 1200mm wide	2400 – 2700	25.8 – 32	30 lifts per hour				
Single glazing – glass only 4mm thickness 10kg m ²	1800 x 1200	21.6	One lift every 30 minutes				
Double glazing – glass only 4mm thickness 20kg m ²	1800 x 1200	43.2	One lift every 30 minutes				
Single glazing- glass only 6mm thickness 15kg m ²	1800 x 1200	32.4	One lift every 30 minutes				
Double glazing – glass only 6mm thickness 30kg m ²	1800 x 1200	64.8	One lift every 30 minutes				
Single glazing – glass only	1800 x 1200	54	One lift every 30 minutes				

10mm thickness 25kg m²							
Double glazing – glass only 10mm thickness 50kg m²	1800 x 1200	108	One lift every 30 minutes				
Concrete lintels	140d x 100h x 3600l	111	1 per day				
Concrete lintels	140d x 100h x 1800l	55.6	1 per day				
Steel lintel – heavy duty	140h x 343w x 1350	17.67	1 per hour max				
Steel lintel – heavy duty	140h x 343w x 3600	47.12	1 per hour max				
Fire doors FD30	1981 x 610	45	1-2 Per hour				
Fire doors FD60	1981 x 610	75	1 -2 per hour				
Double glazed door unit	1900 x 1000	38	1-2 per hour				
Kitchen worktops – quartz 30mm thick	3000 x 600	144	2 – 3 per day				
Kitchen worktops – granite Check thickness	3000 x 600	169	2 – 3 per day				

Kitchen worktops – wood 40mm thick	3000 x 600	52	2 – 3 per day				
Kitchen worktops – laminate 38mm thick	3000 x 600	44	2 – 3 per day				

****Team lifting - mechanical aids to eliminate or reduce the risk should always be considered where team lifting occurs. Risk bands for team lifting are only provided where team lifting would be considered practical.***

Common tasks:

Inspectors should apply the [MAC Tool](#) to advise in determining the risk in any manual handling activity. There may be some historic documents that refer to specific weights. For example, while 20 kg is useful as a rough guide, it is a legacy issue and has not been supported for some time. Instead, you should apply the MAC tool as advised in the ‘Determining risk’ section above.

The following sources of information are provided for the most common construction manual handling tasks; -

- [Plasterboard](#)
- [Kerbs and paving](#)
- [Blocks and masonry](#)

Management considerations – Site level:

When the Inspector has reached a conclusion as to whether the control measures to address the on-site risks are suitable and adequate, wider consideration of the management arrangements made by the dutyholders involved at site level is needed. This will assist in the identification of opportunities that can be used by the dutyholders to prevent / reduce risks through improved co-operation, communication and planning. Examples are outlined within Table 2 below.

Table 2: Movement opportunities to prevent / reduce the risk

Dutyholder	Example opportunities
(Sub)Contractor	<ul style="list-style-type: none"> • ensure plant and equipment are appropriate for the task and adequately maintained

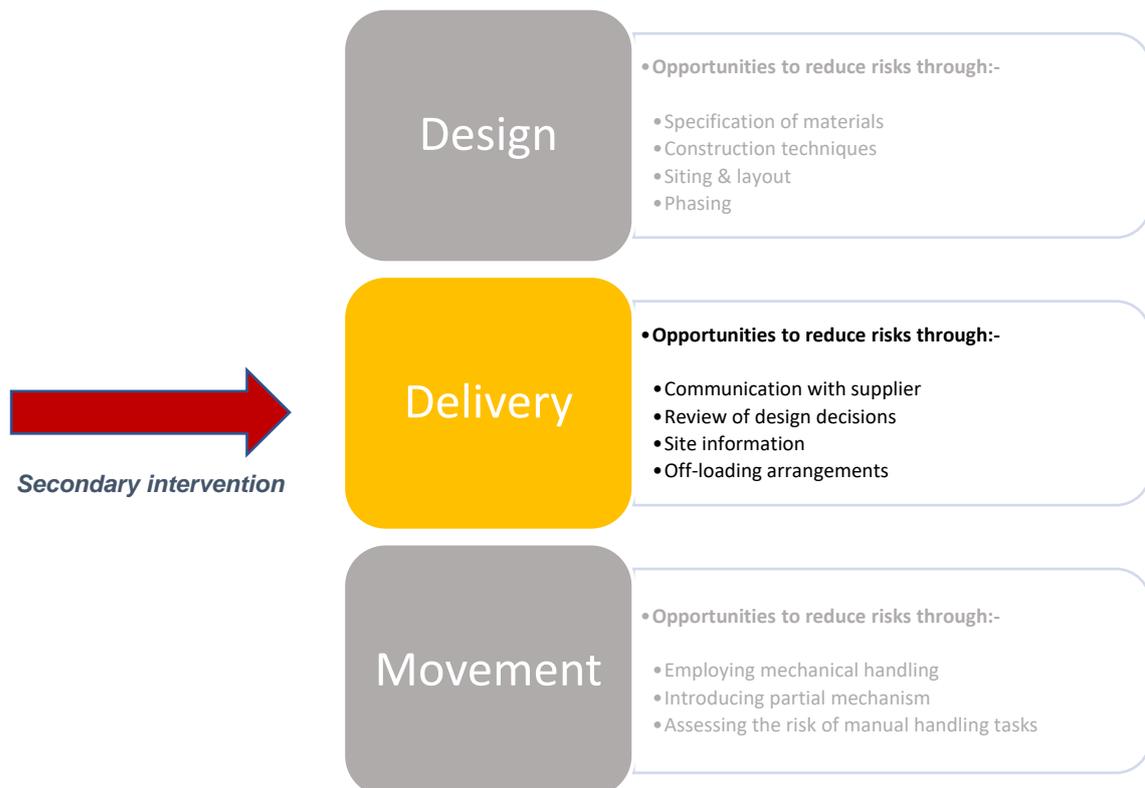
	<ul style="list-style-type: none"> • manage / address the unforeseen / unknown, for example, the unavailability of lifting equipment where specified in the RAMS • ensure the system of work identified within the RAMS is capable of being carried out • ensure operatives fully understand the health and safety risks and control measures associated with installing the materials • implement arrangements to prevent alternative methods of installation being carried out, for example, site decisions / reactions • ensure employees have adequate training • communicate relevant information to the Principal Contractor (PC), such as timings / needs of the installation team, difficult / awkward loads CONSIDER TRACKBACK TO STEP 2
Principal Contractor	<ul style="list-style-type: none"> • double handling minimised where possible CONSIDER TRACKBACK TO STEP 2 • locate loading and storage areas away from pedestrian-only areas and main pedestrian routes CONSIDER TRACKBACK TO STEP 2 • plan and manage workplace transport CONSIDER TRACKBACK TO STEP 2 • implement arrangements to ensure co-ordination and co-operation between contractors • site induction training • ensure procedures for the use of vehicles on site are monitored • review the health and safety performance of everyone on site • manage general site conditions to minimise the risk of moving materials CONSIDER TRACKBACK TO STEP 2 • ensure site plan allows adequate space to facilitate the RAMS in relation to movement and installation for the whole length of the project CONSIDER TRACKBACK TO STEP 2 • ensure other construction activities do not negatively impact upon the installation arrangements CONSIDER TRACKBACK TO STEP 2 • plan / manage the unforeseen during the installation including management arrangements to prevent unsafe installation CONSIDER TRACKBACK TO STEP 2

Appendix 2: Step 2: Site Management Arrangements including pre-delivery

Delivery

The 'delivery' stage covers the delivery of the construction materials to site as well as the offloading of materials to the storage area or ready for use. This is generally the intermediary stage of a construction project and will likely form the secondary intervention following on from information provided at the initial intervention 'movement' stage. While deliveries are generally considered and assessed as part of the site traffic management arrangements, the decisions made relating to delivery also have a direct impact on how materials can be moved and handled from their point of delivery.

Arrangements for delivering to site and offloading will fall under both the Construction (Design and Management) Regulations 2015 (CDM 2015), the Manual Handling Operations Regulations 1992 (MHOR), the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER), The Provision and Use of Work Equipment Regulations 1998 (PUWER), the Work at Height Regulations 2005 (WAH) and the Management of Health and Safety at Work Regulations 1999 (MHSW). Dependent upon the situation, you will need to make an assessment as to the most appropriate legislation for the issue which requires addressing.



Assessing on-site control:

How and where materials are delivered / stored will have a direct impact on how materials are moved and handled to their point of use / installation. Inspectors should establish where materials are delivered and stored on site prior to collection for use. What action has been taken to **identify** risks before work starts, to **control** the residual

risks and how have the drivers and operatives been **trained** / informed / understood the necessary control measures?

In terms of the actual delivery and off-loading of construction materials, most risks created will be safety related. Safety related information and guidance is widely available. An important point to consider will be the creation of safety risks as a 'knock on effect' of introducing mechanisation, such as the safety risks that are created using work equipment.

The assessment of on-site control should be a continuation of the progressive approach. Inspectors will generally start the assessment at the task level and follow the journey of the material back through to the delivery stage to consider how the dutyholder has: -

- Communicated with the supplier(s).
- Reviewed design decisions.
- Considered site information.
- Planned off-loading arrangements.

Arrangements for delivering to site and offloading are generally made at site level and managed by the Principal Contractor (PC). However, there are situations where specialist (or other) contractors may have made independent arrangements for deliveries to site. These should always be co-ordinated enabling the PC to manage and control vehicle movements to / from site. Decisions made relating to delivery will impact upon both the health and safety arrangements for the site.

Site deliveries need to be considered at the planning stage to consider special requirements for deliveries both during transit and offloading. Early contractor involvement may contribute to a reduction of on-site risk through the identification of alternative lower risk options, phasing of construction works and the potential for off-site construction methods.

How deliveries are managed, moved and located will generally changes throughout the duration of a project, with key issues such as what is being delivered, size / weight / packaging, where is it required on site and what are the arrangements for offloading/storage? How the materials / products are moved from position of offloading needs to be planned, managed and monitored for the duration.

Effective planning should identify opportunities to reduce the risk, for example, co-ordination between the site and delivery company / driver will provide information relating to timings, size of vehicles, lifting equipment required, planning for offloading.

Guidance can be found on the HSE website. The topics provided below will signpost to relevant further information:

- [Site organisation](#)
- [Delivering safely](#)
- [Traffic management on site](#)

- [Vehicles at work](#)
- [Mobile plant and vehicles](#)
- [Safe use of lifting equipment](#)
- [Materials storage and waste management](#)
- [Safe use of work equipment](#)
- [Training drivers](#)
- [Lifting operations](#)
- [Telescopic handlers](#)
- [Rider-operated lift trucks](#)
- [Mobile elevating work platforms \(MEWPs\)](#)
- [The selection, management and use of mobile elevating work platforms](#)

Matter of evident concern:

Initial Enforcement Expectations related to the use of construction plant and traffic management can be found within the following guidance documents:

- [Visibility for operators of telehandlers \(variable reach lift trucks\)](#)
- [Risks to the public from un/loading vehicles on the highway](#)

Management considerations – Site / Off-Site level:

When the Inspector has reached a conclusion as to whether the control measures put in place to address the on-site risks associated with deliveries are suitable and adequate, wider consideration of the management arrangements made by the dutyholders involved at both on-site and off-site levels is needed. This will assist in the identification of opportunities that can be used by the dutyholders to prevent / reduce risks through improved co-operation, communication and planning. Examples are outlined within Table 3 below.

Table 3: Delivery opportunities to reduce the risk

Dutyholder	Example opportunities
(Sub)Contractor	<ul style="list-style-type: none"> • demonstrates the principle of prevention has been applied when planning the work, for example, identify / propose alternative materials / sizes, using bulk materials rather than individual bags, the use of mechanical installation CONSIDER TRACKBACK TO STEP 3 • demonstrates consideration of site-specific issues in terms of materials handling when carrying out risk

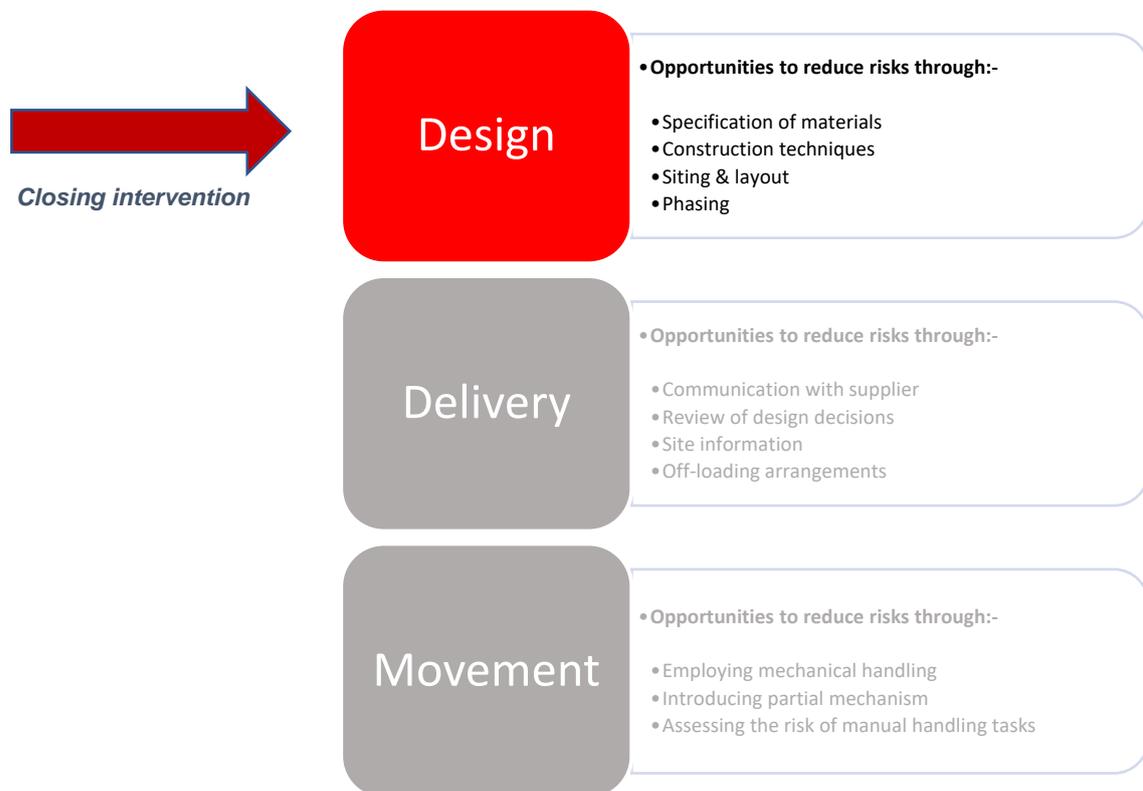
	<p>assessments, for example, ground conditions, access, availability of equipment for moving materials</p> <p>CONSIDER TRACKBACK TO STEP 3</p> <ul style="list-style-type: none"> • communicates relevant information to the PC, for example, which materials require mechanical movement to enable the PC to incorporate delivery arrangements lay down, and storage areas-into the traffic management plan • aware of the arrangements for deliveries to site and off-loading • Communicates relevant information relating to deliveries, for example, deliveries to specific plots where required such as roof trusses
Principal Contractor	<ul style="list-style-type: none"> • reviews the design and identifies the elimination, reduction, control of materials handling. CONSIDER TRACKBACK TO STEP 3 • considers how / when / where materials will be delivered, what this means in practice in terms of site layout, available space, possible traffic restrictions • considers how materials will be managed after delivery, for example, where / when / how / who will install the materials and how this may impact upon managing the site layout • reviews (sub)contractors RAMS to ensure materials are identified in terms of handling • communicates with the suppliers – what will be delivered / when / how. Provides information about site restrictions / conditions and managing arrangements. Methods / instructions for suppliers / delivery drivers are clear and include specific requirements the delivery driver may have such as turning areas, lift plan • ensures the site layout takes account of the needs for delivery drivers to site and the process of unloading • plans the work to minimise vehicle movements, and to avoid unnecessary deliveries and the double handling of materials on site. CONSIDER TRACKBACK TO STEP 3 • ensures the arrangements on-site are as described within the construction phase plan. CONSIDER TRACKBACK TO STEP 3 • ensures information relating to deliveries is communicated both on-site and to others who may be affected

Appendix 3: Step 3: Off-site management arrangements specifically pre-construction

Design

The '**design**' stage covers the pre-construction decision making stages in the journey of the delivery, moving and handling of construction materials. While this is the initial stage of the construction project, it will generally be the final stage or the 'closing' intervention following on from the secondary 'delivery' and initial 'movement' intervention stages. However, the decisions that were made at this stage will have had a direct impact on the materials used and how these materials can be moved and handled from their point of delivery to installation.

Pre-construction phase decisions made off-site will fall under the Construction (Design and Management) Regulations 2015 (CDM 2015) **rather than** the Manual Handling Operations Regulations 1992 (MHOR).



Assessing off-site decisions:

The assessment of pre-construction design decisions should be a continuation of the progressive approach following on from the earlier interventions. Inspectors will generally have started gathering information at the task level and follow the journey of the material back through to the delivery stage and then to the design stage to consider how the dutyholder has:

- Specified materials;
- Considered construction techniques;

- Considered siting and layout;
- Considered construction phasing

The decisions required / made throughout any design process vary greatly. These can include the location, materials, construction technique and phasing. Therefore, the decisions made by off-site dutyholders such as principal designers, designers, clients and others can greatly contribute to how the construction project is developed both during the design and construction processes.

Examples of design decisions that impact upon the risks associated with moving and handling construction materials are:

- The specification of heavy components where space is not available to use mechanical handling equipment;
- The specification of materials where a high number are required to be installed low or high levels where alternative, lower risk products / techniques are available;
- The phasing of the construction work prevents the use of mechanical handling equipment, for example, openings have not been left in the structure to allow for installation of mechanical handling aids.

It may be that decisions creating residual risks have been made for valid / unavoidable reasons. However, CDM 2015 requires designers to take into account the general principles of prevention. Detailed guidance is available in paragraphs 72 – 93 of [‘Managing health and safety in construction’](#).

Evaluating Pre-Construction Decision Making

Inspectors should make enquiries into decisions made during the pre-construction phase where it is apparent that these have led to significant on-site failing(s). The best opportunities to do this are likely to be where the following conditions are met:

1. A task is encountered on site where the risks associated with the moving and handling of construction materials are disproportionately high (regardless of whether they are being adequately controlled or not);
2. Reasonable steps have not been taken to eliminate, control or reduce a risk during the pre-construction / design process where appropriate options are available; and
3. Information proportionate to the remaining risk is not provided to those who need it.

Table 4 below provides some lines of enquiry with regards to important themes within CDM 2015. Not all will be relevant, and they should be adjusted as necessary with regards to the relevant CDM role(s) and its legal requirements. When used as part of the progressive approach it is likely that the interventions carried out at this stage will be informed by previous findings of failures at site. The interventions should focus on these failings and should be used as the basis to consider whether the dutyholder has taken adequate steps to meet the requirements as set out in CDM 2015.

Table 4: Designer / Principal Designer intervention lines of enquiry

Theme	Examples
<p>Skills, Knowledge, Experience (SKE) and Organisational Capability (where appropriate)</p>	<p>Understanding:</p> <ul style="list-style-type: none"> • Can the dutyholder demonstrate an understanding of the construction activities that will give rise to the creation of significant risks created through the moving and handling of construction materials? • What do they understand as the key element of their role and how it is delivered? <p>Knowledge:</p> <ul style="list-style-type: none"> • How is effective knowledge about hazard and risk associated with moving and handling construction materials provided and maintained? • What membership / active participation is there with relevant industry forums and bodies including CPD? <p>Experience:</p> <ul style="list-style-type: none"> • How is learning from experience and feedback captured, promoted and used? <p>SKE:</p> <ul style="list-style-type: none"> • How does the dutyholder ensure they have the right SKE and organisational capability (if needed) to accept their role? <p>Organisational Capability:</p> <ul style="list-style-type: none"> • Does the dutyholder have the right policies and systems in place to set acceptable health and safety standards which comply with the law, and the resources and people to ensure these are delivered? • What design and review procedures are used?
<p>Principles of Prevention</p>	<ul style="list-style-type: none"> • To what extent are the general principles of prevention understood? • How is this considered in relation to moving and handling construction materials? • What access is there to, and use made of, good practice and other relevant guidance material on moving and handling construction materials? • What arrangements exist to ensure significant risks created through moving and handling construction materials are identified?

	<ul style="list-style-type: none"> • How is the elimination, reduction and control of these risks being followed during the design process?
Provision of Information	<ul style="list-style-type: none"> • How is information on significant residual risks conveyed to those who need it? • How is the suitability and effectiveness of this assessed?
Planning, Managing, Monitoring and Coordinating	<p>Reviews:</p> <ul style="list-style-type: none"> • What risk, opportunity and design review meetings are held? • How are significant moving and handling risk issues reviewed as part of this? <p>Design Changes:</p> <ul style="list-style-type: none"> • How are requests for these managed? • How are relevant parties informed? <p>Design Oversight:</p> <ul style="list-style-type: none"> • How is this managed to ensure early selection and options decisions consider moving and handling risks? • What arrangements are in place to ensure those involved can contribute information and raise concerns about health risks? • How are challenges to design decisions raised, considered and closed out? • What factors are considered during this process and how is 'impartial / independent' decision making maintained? • How is practical risk reduction ensured?

Table 5: Client intervention lines of enquiry

Theme	Examples
Appointments	<p>Principal Designer:</p> <ul style="list-style-type: none"> • When were they appointed? • Was this as early as possible? • Was the appointment terminated prematurely?

	<ul style="list-style-type: none"> • What reasonable steps were taken to ensure they had the right skills / knowledge and experience / organisational capability? <p>Principal Contractor:</p> <ul style="list-style-type: none"> • Was the PC appointed at the appropriate stage (early enough) to liaise with the PD and share any relevant health and safety information before construction began? • What reasonable steps were taken to ensure they had the right skills / knowledge and experience / organisational capability?
Pre-Construction Information	<ul style="list-style-type: none"> • Is there any information relevant to materials, locations, specific requirements that the client should provide, for example, end user standards / conformity? • How was the importance of this identified and evaluated?
Suitable Arrangements	<ul style="list-style-type: none"> • Has the client taken ownership of these arrangements? • Are the arrangements clearly communicated in a 'client's brief' or other suitable form? • Are specific risks adequately covered where warranted? • What is in place to ensure co-operation and co-ordination? • How are the arrangements maintained and reviewed? • How did they ensure enough time was provided for the construction phase plan to be prepared, reviewed, commented upon and to allow for changes prior to construction work beginning?

Applying the EMM: This should be applied as normal. Account should be taken of the following:

- **Risk Gap Analysis:** For the purposes of the EMM the above issues should in general be considered as 'compliance and administrative arrangements'. Gap analysis is not appropriate for those factors that do not directly result in the control of risk. Inspectors should use the [EMM](#) Table 5.2 'Compliance and administrative arrangements Initial enforcement expectation table' in these circumstances.
- **Standard:** A decision on the standard as outlined within the EMM will need to be based upon the individual circumstances. However, the standard will either be

established or interpretative. This will depend upon the extent to which they are detailed within the [CDM 2015 guidance](#) or should be interpreted from that.

Table 4: 'Compliance and administrative arrangements', detailed within the EMM provides guidance to assist consistency when assessing standards of compliance, for example, absent, inadequate / minor.

The procedures for recording and handling pre-construction material breaches should be in accordance with the guidance provided on HSE's intranet on [Fee for Intervention](#).