



FINISHES & INTERIORS SECTOR

BEST PRACTICE GUIDE RECOMMENDATIONS FOR THE SAFE INGRESS OF PLASTERBOARD





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Produced by The Plasterboard Material Handling Group on behalf of the Health in Construction Leadership Group and published by FIS.

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INTRODUCTION



Reducing the risk of musculoskeletal disorders (MSDs)

We all need to be mobile to be able to work, to enjoy life outside work and when we retire. Therefore we need to ensure good musculoskeletal health through looking after our bones, joints, back and neck by keeping fit and avoiding injuries.

Many injuries happen in the workplace. Sometimes these are one-off events, an 'accident', and the body gradually heals but repeated injuries or doing tasks in a harmful way can lead to long-term problems. Repeated or awkward handling of heavy items causes greatest risk. The construction industry has the highest rate of musculoskeletal problems, such as back pain or shoulder pain, and these are commonest reasons for people in construction to be off work or having to give up work early.

Musculoskeletal problems are often thought of being an inevitable part of some jobs, but most injuries are not 'accidents', they can be prevented with some forethought and adherence to rules. People also need to invest in their musculoskeletal health and keep physically fit, especially if they are doing physical work, and seek advice if they have a musculoskeletal problem.

Moving plasterboard from the factory to installation gives the opportunity for people to handle heavy products at many stages but any manual handling needs to be as little as possible and done as safely as possible. We all need to think about the health of anyone involved along the whole pathway and how risks can be reduced. Everyone needs to own the problem and it is everyone's responsibility to prevent musculoskeletal problems related to handling plasterboard. This guide gives clear recommendations.

There needs to be good planning and good working practices. For this to happen there needs to be good communication between everyone involved throughout any construction project. Principal contractors should be encouraged to engage with all parts of the supply chain before the logistics plan is developed. Any changes in plans need to consider the effects on the supply movement and installation of plasterboard. Any manual handling needs to be minimised by good planning and using equipment. There needs to be good training and implementation of those practices. Most importantly, everyone needs to have the right attitude and behaviour so that no one in the industry is exposed to short or long-term risks that will affect their musculoskeletal health and ability to do their everyday activities, now or in the future. People need to know how to look after their own musculoskeletal health, but others must not expose them to avoidable risks. In this way, people can work in the industry until they wish to leave it with good health, and not have to leave the industry because of musculoskeletal problems.

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SCOPE

The aim of this guide is to improve health and safety when plasterboard is delivered, moved and stored. Each stage should be planned, communicated and acted on to reduce the risk of injury and ensure a safe working conditions for everyone on site and also that the requirements of The Construction (Design and Management) Regulations (CDM) are met.

This document considers material handling arising from the journey that plasterboard takes when delivered to site.

Types of site considered include homes, commercial, high-rise multi-occupancy, new-builds, refurbishments, and combinations of these types.

The plasterboard journey starts when the delivery arrives at site (although there are many references to the planning that takes place before this) and ends when any waste (eg offcuts) has been taken out of the building and is ready for collection.

It does not consider installation which is covered in two separate reports to HCLG (known as the Astins and the British Gypsum/ Miller Homes reports) or situations where plasterboard is delivered in smaller quantities.

Planning and communication will be key in the success of any attempts to reduce the risk of injury. To assist this, use of the RACI model is recommended to identify the key people involved in this process:

WHO IS **RESPONSIBLE?**

WHO IS **ACCOUNTABLE?**

WHO SHOULD BE **CONSULTED?**

WHO NEEDS TO BE **INFORMED?**

USING THIS GUIDE

The document is broken down into the following headings:

- Planning
- Engagement with manufacturers and distributors
- Delivery and off loading
- Storage
- Vertical and horizontal movement
- Installation
- Storage of off cuts
- Removal and egress of waste
- Glossary
- References.

Each stage is then broken down into more specific sections such as training capability and competency which will allow you to drill down into specific activities and laid out into what has been identified as generally current good practice and additional recommended which along with a checklist will allow teams to plan and implement the key points from this guide, and ultimately ensure the health and safety of everyone involved.



Additional advice and recommendations for home builders is highlighted with this symbol.

Every page features these elements:

AREA

The stage of work and the companies and individuals that this applies to.

CURRENT GOOD PRACTICE

Recommendations from good practice to reduce the risk of injury currently in use.

ADDITIONAL RECOMMENDATIONS

Recommendations of good practice to reduce the risk of injury that may not be widely used or are not yet in use.

CHECKLIST

This can be incorporated into risk registers to demonstrate where key recommendations have been adopted.

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PLANNING

for the safe delivery of plasterboard and safe movement on site

WHO DOES THIS APPLY TO?

ALL DUTY HOLDERS

- For example:
- Client developers
 - Principal contractors
 - Principal designers
 - Designers
 - Contractors
 - Suppliers
 - Health and safety professionals

CURRENT GOOD PRACTICE

The delivery team should arrange meetings between both the specialist contractor and principal contractor as early as possible to understand and plan to:

- Meet the requirements of S61 offloading time restrictions
- Offloading parameters

Key points to consider are:

- Offloading
- Storage
- Movement

Each contractor should appoint a logistics manager or equivalent.

ADDITIONAL RECOMMENDATIONS

The safe delivery and movement of plasterboard should be considered in the planning stage.

Where plasterboard is going to be moved, ramps and steps should be eliminated where possible.

The building should be watertight before starting to install plasterboard.

The horizontal and vertical movement of plasterboard should be planned with a clear and safe route for the internal movement, **H** including storage and movement plans on and around the site and the plot.

HSE advice on reducing the risk of MSDs should be reviewed by the team [hse.gov.uk/msd/msds.htm?utm_source=govdelivery&utm_medium=email&utm_campaign=research-report&utm_term=msds&utm_content=construction-9-jun-20](https://www.hse.gov.uk/msd/msds.htm?utm_source=govdelivery&utm_medium=email&utm_campaign=research-report&utm_term=msds&utm_content=construction-9-jun-20)

A manual handling risk assessment, using the HSE MAC tool, should be completed.

Reducing risk at every stage should be assessed using the hierarchy of control (ERIC) and reviewed throughout the life of the project.

Scaffolding should be clear to allow plasterboard to be safely brought into the building.

H The scaffolding should be designed to provide access for telehandlers to lift plasterboard to the upper floors.

Designers should check that the floor can accommodate the point load of plasterboard stored on the floor.

The correct plant and equipment should be identified and used to move plasterboard on site and that the right conditions are planned on site to allow the plant to be used.

H Plan how plots will be loaded out especially where boards must be lifted over several floors.

H Where access to upper floors may be via window or balcony this should be planned at an early stage to avoid carting plasterboard via stairs.

/continued...

PLANNING

for the safe delivery of plasterboard and safe movement on site

ADDITIONAL RECOMMENDATIONS (cont.)

Further information on manual handling aids can be found in the GPDA (Gypsum Products Development Association) Manual Handling Guide

gpda.com/wp-content/uploads/2019/10/GPDA-Manual-Handling-Brochure.pdf

Tenders should include more requests for information about the ingress of plasterboard. It will demonstrate forethought.

The safe removal of waste from the site face to a waste skip should be considered in the planning stage.

A risk assessment using both the Manual-handling Assessment Chart (MAC) and Risk Assessment of Pushing and Pulling (RAPP) tools should be carried out (see **Reference** page 31).

More guidance can be found in Busy Builder sheet 'Preventing injury during plasterboard handling'
hse.gov.uk/pubns/cis76.pdf



CHECKLIST

- Have all the points in the guide been considered?
- Has the whole supply chain been consulted?
- Have the individuals who will be responsible for offloading, storage and movement been identified?
- Have ramps and steps been eliminated or at least reduced where possible?
- Has the safe offloading movement and storage of materials been planned?
- Is the structure capable of storing plasterboard in bulk on a floor and have impacts on deflection been minimised?
- Are plans in place to eliminate manual handling?
- Have movement plans been included in the tender documents?
- Have the RAPP and MAC tools been considered to eliminate or minimise risks?
- Has the GPDA Manual Handling Guide been circulated and understood?

PLANNING

for the safe delivery of plasterboard and safe movement on site

COLLABORATION AND THE USE OF DIGITAL CONSTRUCTION PLANNING TOOLS (BIM)

CURRENT GOOD PRACTICE

Engage with the designers at RIBA Plan of Work Stage 4 Technical Design to consider the ingress and movement of plasterboard.

[architecture.com/-/media/GatherContent/Test-resources-page/Additional-Documents/2020RIBAPlanofWorktemplatepdf.pdf](https://www.architecture.com/-/media/GatherContent/Test-resources-page/Additional-Documents/2020RIBAPlanofWorktemplatepdf.pdf)

ADDITIONAL RECOMMENDATIONS

Digital models should be used to plan the ingress of materials including storage and movement plans on and around the site and the building.

Digital construction tools should be used to help schedule and rationalise the type and quantity of plasterboard and to help calculate the potential system waste due to openings and cut outs. This information can be used to plan for waste egress and help to reduce manual handling.

Note: lowering the quantity and range of plasterboard on site will reduce the risk of error and potential additional movement of plasterboard.

All service penetrations should be scheduled to ensure that the partitioning can be installed with prepared openings before services are installed. This will reduce the risk of manually handling plasterboard in tight spaces.

The following article provides more context [thefis.org/wp-content/uploads/2015/10/5418-AIS-Insight-April-2013-penetrations.pdf](https://www.thefis.org/wp-content/uploads/2015/10/5418-AIS-Insight-April-2013-penetrations.pdf)

CHECKLIST

- Has the quantity and range of plasterboard been rationalised?
- Has the modelling of the offloading and movement of the of plasterboard been completed?
- Are the service runs and builders' work holes designed and scheduled?
- Have RAPP and MAC tools been considered to eliminate or minimise risks?

PLANNING

for the safe delivery of plasterboard and safe movement on site

TRAINING: CAPABILITY AND COMPETENCY

CURRENT GOOD PRACTICE

A skills gap analysis of the team to identify training requirements should be conducted with pre-start teams including:

- Construction director
- H&S adviser
- Project manager
- All CSCS black card holders.

Note: competency is based on skills knowledge, experience and training (SKET).

Schemes that recognise skills and knowledge include:

- NEBOSH general or Construction Certified
- SMSTS qualified.

More information on the National Occupational Standard (NOS) COSVR643

Move, handle or store resources

ukstandards.org.uk/PublishedNos-old/COSVR643.pdf#search=Move%2C%20handling%20and%20store%20resources

ADDITIONAL RECOMMENDATIONS

The contract should emphasise that the safe ingress, storage, and movement of all materials on site can be achieved safely for everyone involved.

Sufficient time should be allowed in the process to plan for the safe ingress and movement of the plasterboards.

The ingress storage and movement of plasterboard should be planned before tender stage.

Managing health and safety in construction L153 should be used in the planning stage

Note: under CDM, designers are responsible for designing schemes that can be successfully constructed safely at all stages.

CHECKLIST

- Is the design team familiar with the movement and storage of plasterboard on site?
- Are the architects and designers aware of their responsibility regarding the movement and installation of boards on site?
- Are site gate personnel familiar with a site logistics plan?
- Do the people involved have the relevant skills, knowledge and provide specific training to ensure the team is aware of what is required?
- Is the team familiar and able to use RAPP and MAC tools?

PLANNING

for the safe delivery of plasterboard and safe movement on site

PROGRAMME

To be considered at all stages as a live issue

CURRENT GOOD PRACTICE

The delivery team should consider using short term programmes (two weeks at a time) to help with layout changes.

Note: changes to sequencing and layouts could result with the hoist being in the wrong place, or even moved.

H Programmes should be flexible to allow for delays (such as on site, logistics, changes, weather, water ingress,) this can lead to safety issues where work areas and plots are changed leading to the risk of double handling.

ADDITIONAL RECOMMENDATIONS

Produce an agile plan to cope with delays and changes.

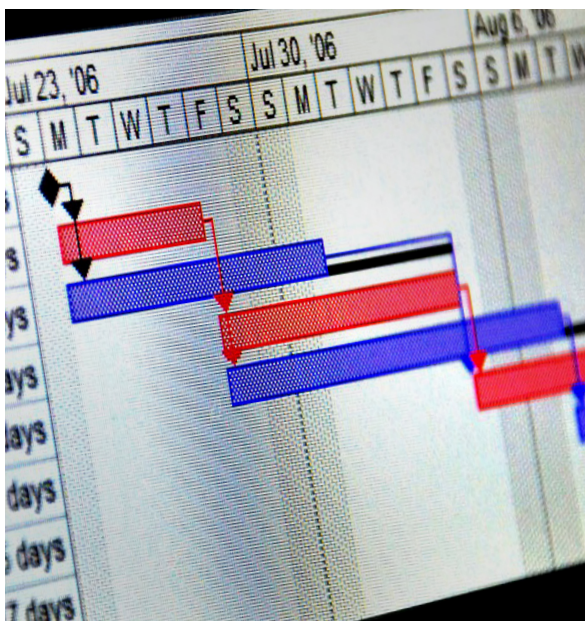
Develop a plan to address changes to the 'what if' scenarios (BIM will help).

Implement regular and frequent updates with the team to allow for considered changes in sequencing.

Note: the principal contractor / **H** developer is responsible for safe movement of materials to the site face.

CHECKLIST

- Are plans in place to cope with possible delays?
- Are plans in place to ensure changes are communicated and the implications on scheduled deliveries accounted for?



ENGAGING WITH MANUFACTURERS AND DISTRIBUTORS

Understand and plan how the plasterboard will be delivered to the site, and what measures can be taken to reduce the risk of injury

WHO DOES THIS APPLY TO?

- **H** Developers
- Principal contractors
- Designers
- Contractors
- Suppliers
- Health and safety professionals

CURRENT GOOD PRACTICE

Ensure that information on pack size is understood as plasterboard is often delivered in packs in excess of 1.5 tonnes, though manual handling aids are often limited to 1 tonne. This increases the risk to labourers when moving trollies on to hoists and around sites.

ADDITIONAL RECOMMENDATIONS

Principal contractors should engage with all parts of the supply chain to understand, review, and contribute to the development of the logistics plan.

The site procurement team should work with the suppliers to fully understand how products are going to be handled and delivered safely to site.

In particular, consider how the products will be delivered and offloaded. Can the design be rationalised to reduce the variety and weight of plasterboards?

The maximum weights of pallets/packs should be scheduled to ensure that appropriate manual handling aids are available during the unloading and movement stages, to ensure safe movement.

CHECKLIST

- Have suppliers been invited to contribute to the delivery and movement planning stage?
- Has a safe way been established for how products are going to be handled and delivered to site?
- Has the design been rationalised to reduce the variety and weight of plasterboard?

ENGAGING WITH MANUFACTURERS AND DISTRIBUTORS

Understand and plan how the plasterboard will be delivered to the site, and what measures can be taken to reduce the risk of injury

MATERIAL SCHEDULING

CURRENT GOOD PRACTICE

Plasterboard should be rationalised where possible using:

- Shorter plasterboard on larger sites
- Narrow plasterboard on smaller sites
- Lighter products.

Plasterboard orders should be reviewed weekly with deliveries scheduled to suit the project and availability of operatives, in tandem with principal contractors and other trades.

Where possible and the scale allows, full loads should be scheduled and storage areas designated to reduce movements of plasterboard.

ADDITIONAL RECOMMENDATIONS

Ordering bespoke size plasterboards close to the required height and rationalisation of types and size can help to reduce waste, as part of a rounded approach to waste and reduce manual handling.

H Consider ordering plot packs.

Consider using a software package that allows scheduling by unit/area.

Ensure that pack quantity / weight is compatible with the equipment on site to move it.

The sequencing of deliveries should be considered in line with programme and rate in which the plasterboard can be installed, to ensure that safe working conditions can be maintained at all stages.

H Material loads should be scheduled to coordinate with demand per dwelling or floor and, on medium rise projects, materials should be scheduled to align with the programme and number of drylining operatives who will install the plasterboard.

CHECKLIST

- Is the schedule kept up-to-date, reviewed and distributed regularly to all contactors involved?
- Has the team considered scheduling by unit?
- Has a decision been made as to how plasterboard will be delivered to site ie in full loads or per unit?
- Are deliveries scheduled to coordinate with labour to install and the programme?
- Has sufficient space been allowed to store materials safely?
- Is there a backup plan if required to accommodate delays
- Have RAPP and MAC tools been considered to eliminate or minimise risk?

ENGAGING WITH MANUFACTURERS AND DISTRIBUTORS

Understand and plan how the plasterboard will be delivered to the site, and what measures can be taken to reduce the risk of injury

LOADING OPTIONS

CURRENT GOOD PRACTICE

The safest way to unload and handle plasterboard when it arrives on site should be planned and communicated.

Ensure that the pack size and how the plasterboard will be delivered is known and communicated and that this information is used to develop a plan for the safe offloading of the plasterboard.

Note: the type and depth of the pallets are determined by thickness and densities of the boards.

ADDITIONAL RECOMMENDATIONS

The orientation of boards and pallets, weights of packs, orientation of hoists and capacity of manual handling aids should be planned to ensure that the plasterboard can be offloaded safely.

Pallets and bearers should be optimised for site to suit the mechanical aid and hoist so they can be lifted from the long and short edge.

The correct manual handling aids should be planned to coordinate with how the plasterboards have been loaded to reduce manual handling risks.

Packs should be loaded to match the safe working load of the trolley being planned on site.

Note: pallets can be a manual handling risk because some pump trucks can't get underneath the boards, and they become a manual handling risk themselves to move.

Note: bearers along the length of the plasterboards can reduce this risk.

Note: four-way pallets can reduce this risk.

Note: standardising bearers or pallets between the supply chain can help with training and planning.

Pallets and bearers should be designed and supplied so that they can be lifted from the long and short edge.

Note: shrinkwrapped or strapped packs can help reduce loads slipping in movement.

CHECKLIST

- Has the delivery method been considered to ensure safe handling?
- Are the stack, pallet/bearers directions considered to coordinate with the hoist directions and capacity?
- Is the loading of the delivery vehicle coordinated with the offloading and distribution of the plasterboard on site?
- Have RAPP and MAC tools been considered to eliminate or minimise risk?

DELIVERY AND OFFLOADING

Planning for the safe offloading of plasterboard

WHO DOES THIS APPLY TO?

- **H** Developers
- Principal contractors
- Principal designers
- Designers
- Contractors
- Suppliers

CURRENT GOOD PRACTICE

The type and capacity of the manual handling aids should be coordinated with the pack weights and pallet type.

ADDITIONAL RECOMMENDATIONS

The type of vehicle should be suitable to access the site and able to be offloaded as planned.

Roadside deliveries should be planned to ensure the fork truck does not need to offload into the road.

Pallet loads on a flatbed should be pre-slung before arriving at site or should have a safe method of access to allow slings to be put in place on site if required.

Information and guidance for the industry on the safe use of equipment can be found at allmi.com/allmi/allmi-cpa-best-practice-guide.html

CHECKLIST

- Has a safe mechanical method of offloading been agreed and communicated with the site team?
- Is there a plan for the short-term storage of plasterboard if required?
- Has the site gate been issued with a site distribution plan?
- Has a photograph of the site entrance and offloading space been sent to the plasterboard supplier?
- Are ground conditions suitable for the safe method of offloading (eg level and dry)?
- Is there sufficient space on both sides of the vehicle to allow the safe offloading of plasterboard?
- Is there enough space to safely store the materials as they are offloaded, ideally undercover?
- Has this been assessed on site before offloading commences?



Loading plasterboard in the factory

DELIVERY AND OFFLOADING

Planning for the safe offloading of plasterboard

CRANE

CURRENT GOOD PRACTICE

A 'lifting plan' should be developed where required by an appointed person (AP).

Note: BS 7121 Code of practice for safe use of crane provides more guidance.

ADDITIONAL RECOMMENDATIONS

Where craning is directly to the site via cantilever platform, roof/floor or scaffold loading bay the site conditions should be reviewed against the plan to ensure this can be done safely.

Note: where loading is to a roof, manual handling of the boards may be required where the access into the building is through a single doorway.

Note: hook time employed in the ingress of structural steel is generally accepted as an exemplar and should be followed where practical. A similar approach for plasterboard would help reduce risk and the need for manual handling.

CHECKLIST

- Has hook time been planned and agreed?
- Has a point been identified to drop the plasterboard?

HIAB

ADDITIONAL RECOMMENDATIONS

Consider planning for the delivery and offloading directly through a floor using the American system.

This will require careful consideration at the home design and layout stage as well as coordination with the plasterboard supplier [youtube.com/watch?v=ySxdBr_Kpa0](https://www.youtube.com/watch?v=ySxdBr_Kpa0)

CHECKLIST

- Can plasterboard be delivered to the upper floors through a window opening?
- Can plasterboard be loaded in packs to suit the plot?
- Does the delivery vehicle have the correct lifting arm?
- Does the site layout allow the vehicle to get close enough to the plot?

DELIVERY AND OFFLOADING

Planning for the safe offloading of plasterboard

HOIST

CURRENT GOOD PRACTICE

The principal contractor should plan for the installation of the hoist and provide sumps at ground level and the facility to tie into the soffit at each floor level to ensure there is level and safe access and egress to avoid ramps.

Movement routes should be planned to avoid clashes with other trades.

There should be level access at all floor levels.

ADDITIONAL RECOMMENDATIONS

The position and orientation of the hoist should be planned in relation to building out of the drylining as well as scheduling other trades to reduce or even eliminate manual handling.

Hoist size should be adequate to accept plasterboard pallets.

The hoist should be designed to accept plasterboard on a trolley to ensure there is sufficient space to allow the product to be loaded safely onto and off the hoist on a trolley.

Plasterboard should enter and exit the hoist safely with no manual lifting.

CHECKLIST

- Is the hoist in the right position to minimise horizontal movement of plasterboard?
- Are the hoist gates in the right orientation to allow plasterboard to be mechanically loaded into the hoist?
- Is the hoist large enough to safely accommodate a pack of plasterboard (length, width, height and weight)?
- Is the hoist available at all stages, including egress?
- Does the hoist installed provide sumps at ground level and the facility to tie into the soffit at each floor level to ensure there is level and safe access and egress to avoid ramps?



**Level egress
from the hoist**

DELIVERY AND OFFLOADING

Planning for the safe offloading of plasterboard

SITE INDUCTION

CURRENT GOOD PRACTICE

Regular health monitoring is beneficial to check that the labourers have manual handling training on the movement of plasterboard.

Labourers should be employed on a 'day work' basis rather than 'piece work' which can encourage shortcuts and risk taking.

Encourage rotating tasks to alleviate risk from monotonous and repetitive work to reduce the risk of MSDs from manual handling.

ADDITIONAL RECOMMENDATIONS

The operatives should be in possession of a current CSCS green card and have had appropriate labourers training and have had the appropriate skill, knowledge and experience (training) in plasterboard handling.

Plasterboard should be moved on powered equipment.

Operatives health should be checked and monitored regularly to maintain wellbeing and the ongoing safety of them and others on site using apps to help keep records of staff movements and time.

Manually picking plasterboard should be avoided until installation.

CHECKLIST

- Are all operatives in possession of a relevant CSCS card?
- Have they had relevant training in manual handling plasterboard?
- Is the site team aware of the safe handling of the plasterboard agreed during the planning stages?
- Are plans available to regularly monitor the frequency of task rotation?

STORAGE

Planning for the safe storage of plasterboard when it has been offloaded

WHO DOES THIS APPLY TO?

- **H** Developers
- Specialist contractors
- Principal contractors
- Suppliers

CURRENT GOOD PRACTICE

Plasterboards should only be stored on a clean, dry and level site.

Maximum heights of pallets should be assessed with the supplier / manufacturer.

Point loading of the floors to accommodate the stored plasterboard should be assessed before loading out.

Note: if the pack is put down, can it be picked up again?

Plasterboard should be loaded directly to upper floors where possible to reduce risks associated with double handling.

ADDITIONAL RECOMMENDATIONS

Storage should have sufficient space to segregate plasterboard types, reduce double handling and allow for the safe picking of plasterboard as required for installation.

Plasterboard should be stored in accordance with BS8000-8 and NHBC Chapter 9.2.4 nhbc-standards.co.uk/9-finishes/9-2-wall-and-ceiling-finishes/9-2-4-dry-lining/

Plasterboard should be stored undercover on a flat dry surface. Where it is stored outside, protective board covers should be used before stacking to a maximum height as agreed with the manufacturer / supplier.

Manually picking plasterboard should be avoided until installation.

CHECKLIST

- Has the developed plan been shared with the team on site to safely store the plasterboard in a dry level site to enable the minimum amount of further movement to the site face?

VERTICAL MOVEMENT

Planning for the safe vertical movement of plasterboard

WHO DOES THIS APPLY TO?

- **H** Developers
- Specialist contractors
- Principal contractors

CURRENT GOOD PRACTICE

Identify if the vertical movement of plasterboard will necessitate being in stages and plan for the impact and risk accordingly.

A movement and internal site logistics plan should be developed; this is key to ensure a safe and productive site.

Stairs should be avoided where possible to cart plasterboard.

Ramps and steps should be eliminated.

All movement should be coordinated with the other trades on the floor to ensure that the plasterboard can be moved safely.

ADDITIONAL RECOMMENDATIONS

A specialist logistics team should be used to move plasterboard.

Practice runs to ensure the safe movement of plasterboard should be carried out, and any adjustments to the plan made where required.

The health and wellbeing of the team moving the plasterboard should be checked regularly.

Movement times should be regulated to ensure they don't clash with break times.

Traffic marshals should be briefed and in place to ensure safe movement of plasterboard.

Tasks should be rotated to alleviate the risks of MSDs.

Manually picking plasterboard should be avoided until installation.

H Where practical the use of a proprietary plasterboard letterbox should be used to ensure that plasterboard can be safely passed between floors.

Note: positioning and installation of a letterbox is crucial to avoid unintended consequences caused by potential movement in the floor and should be coincident with floorboard edges and away from service ducts.

A telehandler should be used where practical to move plasterboards to upper floors.

/continued...

VERTICAL MOVEMENT

Planning for the safe vertical movement of plasterboard

ADDITIONAL RECOMMENDATIONS (cont.)

H In addition, the following recommendations on ingress are taken from the 'Plasterboard Manual Handling – comparing 900mm and 1200mm in new-build housing British Gypsum / Miller Homes Report'

- Ensure pallets of boards and sacks are positioned close to the property entrance, but without compromising safety from a trip hazard or visibility point of view.
- Ensure ground conditions between the pallets and the property entrance are even and provide a good grip even in wet conditions.
- Ensure there is not an excessive step up into the property due to the unfinished ground outside. The aim should be to avoid a step up any greater than 190mm but ideally it should be less than this.
- Provide letterboxes and ensure opening positions do not hinder upward transfer (ie not placed too close to a wall).
- Agree a common industry system for marking letterboxes to avoid trades overlaying them with pipes and cables etc.
- Provide letterboxes in multiple rooms – particularly if there is restricted space for manoeuvring around studwork.

CHECKLIST

- Is a practice run required to ensure that plasterboard can be safely moved?
- Has the internal logistics plan been clearly communicated?
- Is the weight capability of the hoist understood and is it compatible with the stack loads?
- Is there an agreed plan for how plasterboard will be loaded on the hoist?
- Has a plan been made to safely offload the plasterboard from the hoist?

HORIZONTAL MOVEMENT

Planning for the safe horizontal movement of plasterboard

WHO DOES THIS APPLY TO?

- **H** Developers
- Specialist contractors
- Principal contractors

CURRENT GOOD PRACTICE

A clear and safe route for the internal movement of plasterboard should be planned and communicated.

Trolleys should be appropriate to the conditions and weight of plasterboard being moved.

The movement of plasterboard should be coordinated with other trades on the floor to ensure that it can be moved safely using mechanical aids.

ADDITIONAL RECOMMENDATIONS

The distance between plasterboard storage and installation should be as short as possible.

Plasterboard should not be picked by hand until installation.



CHECKLIST

- Has a clear and safe route been identified and marked out for the internal movement of plasterboard?
- Is the floor clear and the surface suitable for the safe movement of plasterboard before loading the hoist?
- Are sufficient and suitable trolleys available to safely offload plasterboard and transfer to the storage or site face?
- Does the hoist arrive flush with the floor level to avoid ramps?

Safe horizontal movement using trolleys

HORIZONTAL MOVEMENT

Planning for the safe horizontal movement of plasterboard

MECHANICAL AIDS

CURRENT GOOD PRACTICE

Mechanical aids should be used at all stages, where possible and practical.

ADDITIONAL RECOMMENDATIONS

Loads should be matched to the capacity of the mechanical aid.

Powered trollies and dollies should be used fitted with a 'dead man's brake'.

CHECKLIST

- Is the weight capability of the trollies (working load) sufficient for the weight of plasterboard?
- Has the GPDA Guide on using mechanical aids been circulated and understood by the teams and individual operatives?
gpda.com/wp-content/uploads/2019/10/GPDA-Manual-Handling-Brochure.pdf
- Has the RAPP tool been used?
hse.gov.uk/pubns/indg478.htm

Lift-capable
plasterboard
trolley



STORAGE ADJACENT TO THE WORKFACE

Planning for the safe storage of the plasterboard adjacent to the work area

WHO DOES THIS APPLY TO?

- **H** Developers
- Specialist contractors
- Principal contractors

CURRENT GOOD PRACTICE

Trestles or A frames should be used to allow the dryliners to access plasterboard without crouching or bending.

ADDITIONAL RECOMMENDATIONS

Pack should not be broken until it arrives at the site face.

Plasterboard should not be stored vertically against walls.

Where plasterboard is stored horizontally against walls, this should be limited to six boards that are strapped back to the structure and do not hamper access.

Note: ensure the wall is capable of accommodating the load.



CHECKLIST

- Has a clear space been allocated for the safe storage of plasterboard?
- Is the structure sufficient to accommodate the weight of plasterboard?
- Has the method of storage been assessed for safety?
- Does this include any strapping of plasterboard where stored horizontally against a structure?
- Is the wall capable of accommodating the load?
- Can the boards be safely removed from the stack?
- Does the storage allow for the safe manual handling of plasterboard to the site face?

Storage on trestle tables

STORAGE OF OFFCUTS

Planning for the safe storage of plasterboard offcuts

WHO DOES THIS APPLY TO?

- **H** Developers
- Specialist contractors
- Principal contractors

CURRENT GOOD PRACTICE

Dedicated wheelie bins should be placed close to the work face so that offcuts can be safely stored and double handling is avoided.

Larger dedicated storage units should be placed as close to the hoist as practical.

Where possible all material movement should be done using mechanical aids.

Dedicated storage compounds should be placed as close to the plots as practical.

ADDITIONAL RECOMMENDATIONS

Material / manual handling risks at this stage could be reduced or even eliminated. MAC and RAPP tools should be used to identify and manage risk.

Consider using an on site shredder, so that waste can be compacted to reduce transport waste.

Ample and suitable dedicated mobile storage units / bags should be provided for segregated plasterboard waste.

A dedicated space for smaller mobile storage units (wheelie bins) should be allocated close to the hoist so that they can be transported vertically to a central collection area.

CHECKLIST

- Have you used MAC and RAPP tools to identify and manage risk?
- Has sufficient space been allowed for the safe storage of offcuts?
- Have sufficient dedicated storage units for plasterboard waste been allowed?



Plasterboard shredder

REMOVAL AND EGRESS OF WASTE

Planning for the safe removal and egress of plasterboard offcuts

WHO DOES THIS APPLY TO?

- **H** Developers
- Specialist contractors
- Principal contractors

CURRENT GOOD PRACTICE

Plasterboard is a resource and waste should be kept to a minimum.

Handling offcuts by hand should be kept to a minimum.

ADDITIONAL RECOMMENDATIONS

Waste in smaller mobile storage units (wheelie bins) should be transported vertically to a central collection area.

A clear route should be allocated for transporting the smaller wheelie bins to a segregated waste skip.

Mechanical aids should be used to transfer the waste from the wheelie bins to the skip.

Plasterboard waste should be recycled through the Gypsum Reprocessers Association UK and Ireland (GRAUKI)
membe43.wixsite.com/grauki

Information on the Plasterboard Resource Efficiency Action Plan is available from
assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69303/pb13439-plasterboard-101019.pdf

CHECKLIST

- Has the removal of plasterboard waste been planned and communicated?
- Have sufficient wheelie bins been provided?
- Has a clear route for the movement of waste been planned and allocated on the drawings?
- Are appropriate mechanical aids resourced and available?

Plasterboard waste trolley



GLOSSARY

Appointed Person (AP)

In lifting operations, an appointed person is the person responsible for the execution and safety of a lifting operation. An appointed person may also be a crane supervisor or crane operator in addition to being an appointed person.

BIM

Building Information Modelling and Management is a collaborative digital process for the delivery and maintenance of an asset.

BS8000-8

Workmanship on building sites. Code of practice for plasterboard partitions and drylinings.

CDM

Construction (Design and Management Regulations) 2015.

Client

An organisation or individual for whom a construction project is carried out. CDM 2015 Reg 4 and Reg 5 set out the client's duties.

Competency

See **skills, knowledge and experience** (page 28).

Contractors

Appointed to do the actual construction work and can be either an individual or a company. CDM 2015 Reg 15, Duties of contractors.

CSCS

Construction Skills Certification Scheme.

Designers

Those who, as part of a business, prepare or modify designs for a building, product or system relating to construction work. CDM 2015 Reg 9 Duties of designers.

Developers

Organisations that purchase land, gain public approval, finances, determine the building programme and design, market the property, build the structures, rent out, manage, and ultimately sell the property.

Drylining

The materials and systems used to create building elements, predominantly comprising plasterboard with associated fixing and finishing products. Also used to describe the process of installing those systems.

Egress

The movement of waste from the work face and ultimately the site.

ERIC

Hierarchy of control – Eliminate, Reduce, Isolate, Control.

FIS

Finishes and Interiors Sector: the not for profit representative body for the £10 billion finishes and interiors sector in the UK. The organisation exists to support its members, improve safety, minimise risk, enhance productivity and drive innovation in the sector. thefis.org

Flat bed

May be used to refer to a lorry trailer with no roof, which is therefore suitable for offloading with a crane, or to a trolley used to carry boards horizontally.

Fork truck

Material handling truck with fork tines designed to handle (typically) two tonnes or more such that it can move full stacks of boards and other palletised loads.

Gantt chart

Chart used to visually show the major steps in a process with their expected timescales.

GLOSSARY

GPDA

Gypsum Products Development Association: the trade association of UK gypsum product manufacturers.
gpda.com

HBF

Home Builders Federation: a trade association representing private sector homebuilders in England and Wales. Its members deliver around 80% of new homes built each year.
hbf.co.uk

Hiab

Hiab is the brand name of on-road load handling equipment - generically attributed to any lorry-mounted crane or lorry loader.

Hook time analysis

Planning the time spent lifting, usually associated with a tower crane but could be considered as time spent lifting with any lifting appliance.

Hoist

A device used for lifting goods and people.

Horizontal movement

The level movement of material/equipment ie could involve some lifting/lowering eg onto trolley but not from one floor to another.

HSE

Health and Safety Executive
hse.gov.uk

Ingress

The movement of materials into and around a construction site.

Logistics

The planning, execution, and control of procurement, transport, and stationing of workers and material, material handling equipment and other resources to achieve the goals of a construction project. Whilst often associated with transport 'Logistics' is a comprehensive business planning framework for the management of material, service, information and capital flows.

Logistics manager

See **logistics**. Logistics management is the process of planning, implementing and controlling supply chain resources, generally from the point of origin, such as raw material accumulation, to the point of destination, ie delivering goods to the correct location on the construction site.

Logistics plan

See **logistics**. The construction supply chain covers all movements of goods, waste and servicing activity to and from site. The logistics plan provides the framework for understanding and managing construction vehicle activity into and out of a proposed development.

MAC tool

Manual handling Assessment Chart tool.

Main contractor

See **principal contractor** (page 28).

Manual handling

Any transporting or supporting of a load (including lifting, putting down, pushing, pulling, carrying, or moving) by hand or bodily force.

Manual handling aid

Equipment designed to remove or reduce the risk of injury to employees from manual handling at work. Handling aids may also contribute to efficiency and make the task easier, leading to reduced fatigue. Ensure that manual handling aids are risk assessed.

GLOSSARY

MOFFETT TM

A forklift attached to the delivery lorry that arrives and leaves with the delivery lorry (other manufacturers products are available).

hiab.com/en/moffett/

NEBOSH

National Examination Board in Occupational Safety and Health

nebosh.org.uk

One tonne lift

A term used to describe half packs, it is a colloquial term and does not relate to the actual load which is often lighter.

Pack/package

An object or groups of objects that are wrapped or packed together for storage and/or moving.

Pallet

A platform or a set of bearers or dunnage on which goods are placed for storage and/or moving.

Plant

Equipment used for moving material and plasterboard.

Point loading

An established load (force), located at a certain point on a supporting structure.

Principal contractor

The contractor appointed under regulation 5(1)(b) of the CDM Regulations 2015 to perform the specified duties in regulations 12 to 14.

Principal designer

The designer appointed under regulation 5(1)(a) to perform the specified duties in regulations 11 and 12.

RACI model

See **RACI model** (page 30).

Ramp

A surface connecting a higher and a lower level; a slope.

RAMS

Risk Assessment and Method Statement
hse.gov.uk/risk/faq.htm

RAPP tool

Risk Assessment of Pushing and Pulling tool.

Risk assessment

An assessment of the risks to the health and safety of persons employed or those who may be affected by work activities.

Roadside deliveries

Where the delivery is made to a road outside of the site confines.

S61

A planning condition that outlines the works which are planned to take place, the working hours of the site and a plan to mitigate potential noise during construction.

SWL

Safe Working Load – the maximum load the equipment can safely lift.

Skills, knowledge and experience

CDM 2015 requires anyone appointing designers (including principal designers) and contractors (including principal contractors) to ensure that those appointed have the skills, knowledge and experience to carry out the work in a way that secures health and safety. CDM 2015 Reg 15 (7) A contractor must not employ or appoint a person to work on a construction site unless that person has, or is in the process of obtaining, the necessary skills, knowledge, training and experience to carry out the tasks allocated to that person in a manner that secures the health and safety of any person working on the construction site.

GLOSSARY

SMSTS

Site Management Safety Training Scheme
citb.co.uk/national-construction-college/health-and-safety-courses/site-management-safety-training-scheme-smsts/

Specialist contractor

A contractor who specialises in one aspect of construction. Also known as trade contractors or subcontractors.

Stack

A storage method where materials are generally placed on top of one another.

Storage

Putting plasterboard in a safe, level and dry place until required.

Supplier

The organisation providing the materials.

Supply chain

The system of people and organisations who are involved in getting a product from the place where it is made to the installed state.

Tautliner

Curtain walled trailer or lorry.

Vertical movement

The movement of elevating and lowering material and equipment between floors.

Weather protection

Ensuring that goods, operatives and all work can be safely stored and installed in conditions required by the manufacturers.

Weight capacity

The weight a vehicle, crane, hoist, floor trolley or other aid can safely carry.

RACI MODEL

EXAMPLE TASK Delivery and offloading using a fork truck

WHO IS RESPONSIBLE? Fork truck operator

Who is or will be doing this task?

Who is assigned to work on this task?

WHO IS ACCOUNTABLE? Developer / principal contractor

Whose head will roll if this goes wrong?

Who has the authority to make decisions?

WHO SHOULD BE CONSULTED? Supplier
Fork truck operator
Gate

Is there anyone who can tell me more about this task?

Are there any stakeholders already identified?

WHO NEEDS TO BE INFORMED? Everyone involved with offloading, movement and storage of materials

Is there anyone whose work depends on this task?

Who has to be kept updated?

KEY PERFORMANCE INDICATOR Materials safely off loaded without injury, damage or loss of time.

teamgantt.com/blog/raci-chart-definition-tips-and-example

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FINISHES & INTERIORS SECTOR

BEST PRACTICE GUIDE **RECOMMENDATIONS FOR THE SAFE INGRESS OF PLASTERBOARD**

FIS is the leading representative body for the finishes and interiors sector in the UK, supporting contractors, manufacturers and suppliers of all aspects of finishes, interior fit-out and refurbishment. Its aim is to improve safety, minimise risk, enhance productivity, improve competency and drive innovation in the sector. One of its core objectives is to help create a healthier and safer construction environment for all.

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