

**Heavy Building Materials Handling (Glass, Brick, Board)**

Business Name:		ABN:
Business Address:		
Contact Person:	Phone:	Email:

**THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT**

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

**CLIENT OR PRINCIPAL CONTRACTOR DETAILS**

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	



RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			<b>Elimination</b> Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	<b>Substitution</b> Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	<b>Engineering</b> Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	<b>Administrative</b> Change	
								<b>PPE</b>	

  

Risk Rating & Required Action:	
<b>4A</b>	Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.
<b>3H</b>	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
<b>2M</b>	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
<b>1L</b>	Proceed, following standard operating procedures. Monitor and keep records.

  

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
<b>Catastrophic</b>	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
<b>Major</b>	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
<b>Moderate</b>	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
<b>Minor</b>	First-aid only, no lost time	negligible delay	Isolated non-conformance
<b>Insignificant</b>	No injury	no schedule impact	Deviation caught and corrected on site

  

**Notes on Hierarchy of Controls:**  
Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. **Substitute**
3. **Isolate**
4. **Engineering**
5. **Administrative**
6. **PPE**

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

*aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.*

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. WHS Governance, Roles and Consultation	<ul style="list-style-type: none"> <li>Lack of clear WHS responsibilities for managers, supervisors and workers involved in heavy building materials handling</li> <li>Inadequate consultation with health and safety representatives (HSRs) and workers about manual handling risks associated with glass, bricks, boards and other heavy or awkward loads</li> <li>Poor integration of heavy materials handling risks into overall WHS management system and corporate risk register</li> <li>Failure to allocate budget and resources for safe handling systems, lifting aids and training</li> <li>Ineffective oversight of contractors and labour-hire workers undertaking manual handling of heavy building materials</li> <li>Inadequate review and monitoring of WHS performance indicators relating to musculoskeletal disorders and manual handling incidents</li> </ul>	4A	<ul style="list-style-type: none"> <li>Establish and document a WHS governance structure that clearly assigns duties for managing heavy building materials handling risks in line with WHS Act 2011 (PCBU, officers, workers and others)</li> <li>Implement a formal WHS consultation procedure requiring regular toolbox talks and meetings focused on manual handling of heavy and awkward items (e.g. glass sheets, longframes, cement bags, bricks, drywall, roofing rolls, aggregates)</li> <li>Include heavy building materials handling as a distinct item in the organisation's WHS policy, risk register and strategic WHS plan, with defined objectives and targets for risk reduction</li> <li>Define and communicate WHS responsibilities in position descriptions, contracts and contractor agreements, including expectations for safe materials handling systems and reporting</li> <li>Ensure officers exercise due diligence by periodically reviewing heavy materials handling risk assessments, incident data and investment in engineering controls</li> <li>Establish WHS performance metrics (e.g. manual handling injury rates, reported near misses, compliance with handling procedures) and review them at management meetings</li> <li>Implement a documented procedure requiring engagement with HSRs and workers when significant changes occur (new products, new handling equipment, layout changes) that affect manual handling risks</li> </ul>	3H
2. Procurement and Specification of Materials and Equipment	<ul style="list-style-type: none"> <li>Procurement of excessively heavy or awkward product types (e.g. large panes, large glass panes, oversized sanitary ware, oversized curtain boxes, large cladders, wide drywall boards, bulk cement bags) without considering manual handling risk</li> <li>Selection of packaging and palletising that does not allow for mechanical handling (e.g. non-palletised bagged products, loose bricks, unbanded roofing rolls)</li> <li>Purchase of handling equipment (trolleys, glass lifters, dollies, forklifts, vacuum lifters, cranes) that is unsuitable for the types, sizes and weights of materials handled</li> <li>Failure to specify ergonomically suitable cement bag weights or brick bundle sizes in supply contracts</li> </ul>	4A	<ul style="list-style-type: none"> <li>Develop and implement a procurement standard that mandates consideration of weight, dimensions and manual handling risks for all building materials prior to purchase</li> <li>Specify maximum unit weights and sizes in purchase agreements for cement bags, bricks, drywall boards, gypsum products, cladders, roofing rolls and sanitary ware to minimise need for high-risk lifting</li> <li>Require suppliers to palletise, band or crate aggregates, bricks, glass, tiles and bagged products to facilitate mechanical handling and reduce double handling</li> <li>Mandate that suppliers provide clear product weight, safe lifting points and handling instructions for heavy doors, windows, glass sheets, longframes and heavy metal components</li> <li>Ensure all new handling equipment is selected with reference to risk assessments and user consultation, and is compatible with the range of loads (e.g. vacuum glass lifters sized for typical pane dimensions)</li> <li>Include in procurement procedures a requirement to consider future storage layout, racking systems and access for forklifts and cranes</li> <li>Conduct pre-purchase trials or demonstrations for new handling systems and obtain feedback from end-users before standardising equipment</li> </ul>	2M

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	<ul style="list-style-type: none"> <li>Inadequate consultation with workers and supervisors during procurement, leading to impractical or unsafe storage and handling solutions</li> <li>Lack of requirement for suppliers to provide load weights, centre-of-gravity information and handling instructions for heavy windows, doors, glass sheets and metal pieces</li> </ul>			
3. Site Layout, Storage Design and Traffic Management	<ul style="list-style-type: none"> <li>Poorly designed storage areas requiring long carrying distances for bricks, boards, glass sheets and heavy windows or doors</li> <li>Inadequate segregation of pedestrian walkways from mobile plant and delivery vehicles during heavy materials movement</li> <li>Congested laydown and storage zones increasing the likelihood of awkward lifting postures and sudden load shifts</li> <li>Insufficient space and headroom for safe use of cranes, forklifts, glass trolleys and mechanical lifting devices</li> <li>Inadequate racking or stillage design for glass, longframes, drywall sheets and metal pieces leading to instability and potential collapse</li> <li>Poor lighting, uneven ground surfaces and trip hazards in bulk aggregate bins and bagged product storage areas</li> <li>Lack of designated rest stations or interim staging points for team lifting of heavy and awkward materials</li> </ul>		<ul style="list-style-type: none"> <li>Develop a documented site layout and traffic management plan that minimises manual carrying distances and clearly separates pedestrian and vehicle movements in high-risk areas</li> <li>Design storage locations for frequently used heavy materials (cement bags, bricks, tyres, glass sheets, cladders) at waist to mid-chest height where practicable, reducing bending and reaching</li> <li>Install purpose designed racking, A-frames, stillages and storage racks for glass, longframes, drywall, roofing rolls and metal pieces, with documented inspection and load rating labels</li> <li>Ensure adequate clearances, turning circles and overhead height are provided for forklifts, pallet jacks, cranes and glass trolleys in all materials handling routes</li> <li>Implement housekeeping standards and scheduled inspections to maintain level, unobstructed walkways and work platforms around storage and handling areas</li> <li>Provide sufficient lighting in warehouses, loading docks, glazing areas and outdoor laydown zones to enable safe handling and assessment of loads</li> <li>Designate specific transfer points and mechanical aid 'pick-up' zones close to unloading points for aggregates and heavy building products, reducing double handling</li> <li>Integrate site layout reviews into change management processes whenever storage locations or traffic routes are altered</li> </ul>	2M
4. Material Handling Systems and Mechanical Aids	<ul style="list-style-type: none"> <li>Over-reliance on manual lifting and carrying for glass, bricks, boards, cement bags, tyres and heavy roofing rolls due to lack of mechanical aids</li> <li>Inappropriate or poorly matched handling equipment (e.g. using basic trolleys for large glass sheets, or manual carriage of longframes)</li> <li>Failure to maintain and inspect lifting devices (vacuum lifters, hoists, slings,</li> </ul>	4A	<div style="background-color: black; width: 100%; height: 20px; margin-bottom: 5px;"></div> <div style="background-color: black; width: 100%; height: 20px; margin-bottom: 5px;"></div>	2M

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	<p>clamps, cranes) used for heavy windows, doors and metal assemblies</p> <ul style="list-style-type: none"> <li>• Lack of standardised procedures for mechanical lifting of aggregates, bagged products and palletised bricks</li> <li>• Use of makeshift lifting attachments or unapproved lifting points on glass frames, cladders and metal pieces</li> <li>• Insufficient availability of handling equipment resulting in time pressure and unsafe manual lifting work-arounds</li> </ul>		[REDACTED]	
5. Manual Handling and Ergonomics Management	<ul style="list-style-type: none"> <li>• Excessive manual lifting, lowering, pushing, pulling and carrying of heavy or awkward loads such as bricks, cement bags, drywall, glass sheets, sanitary ware, tyres and roofing rolls</li> <li>• Awkward postures when positioning glass, metal pieces, heavy cladders or boards at height or low level</li> <li>• Repetitive handling of bagged aggregates, bricks and products without job rotation or rest breaks</li> <li>• Inadequate systems to assess and control cumulative musculoskeletal disorder (MSD) risks</li> <li>• Lack of formal criteria for maximum manual handling weights, team lift requirements and use of mechanical aids</li> <li>• Poor consideration of individual capability (age, physical condition, pre-existing injuries) during task allocation</li> </ul>	4A	[REDACTED]	2M
6. Training, Competency and Supervision	<ul style="list-style-type: none"> <li>• Workers performing heavy materials handling tasks without adequate training in risk identification and safe techniques</li> </ul>	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> <li>Inadequate competency of operators using forklifts, cranes, hoists, vacuum glass lifters and other mechanical aids</li> <li>Poor supervision leading to unsafe shortcuts such as one-person lifts of heavy windows or manual carrying of longframes</li> <li>Contractors and temporary workers not inducted into site-specific heavy materials handling controls</li> <li>Lack of refresher training, resulting in drift from safe systems of work over time</li> <li>Language barriers and low literacy affecting understanding of handling procedures and signage</li> </ul>		[REDACTED]	
7. Contractor and Supply Chain Management	<ul style="list-style-type: none"> <li>Inconsistent WHS standards between principal and contractors for handling heavy building materials</li> <li>Delivery drivers and third-party logistics providers manually handling heavy products without proper systems or equipment</li> <li>Poor coordination of delivery times leading to rushed unloading of bricks, glass, boards, aggregates and bagged cement</li> <li>Lack of clarity regarding responsibilities for provision of lifting equipment and spotters during deliveries and installations</li> <li>Suppliers ignoring procurement specifications for weight limits, packaging and palletising of heavy materials</li> </ul>	3H	[REDACTED]	2M
8. Vehicle Loading, Transport and Unloading Systems	<ul style="list-style-type: none"> <li>Unsafe loading configuration of utes and trucks leading to shifting loads of</li> </ul>	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> <li>bricks, glass, boards, tyres, cement bags and aggregates during transit</li> <li>Inadequate load restraint systems for longframes, roofing rolls and heavy windows or doors</li> <li>Uncontrolled unloading, including workers climbing on truck decks and manually dragging heavy items</li> <li>Lack of standardised procedures for tail-lift, crane or forklift unloading of palleted and stillaged materials</li> <li>Time pressure on drivers resulting in non-compliance with safe loading and unloading processes</li> <li>Insufficient communication between drivers, dogmen and site personnel during complex unloading operations</li> </ul>		[REDACTED]	
9. Hazard Identification, Risk Assessment and Change Management	<ul style="list-style-type: none"> <li>Failure to systematically identify and assess manual handling and lifting risks associated with new materials, products or construction methods</li> <li>Ad-hoc introduction of new class sizes heavier bricks, alternative cladding boards or bulk handling methods without formal risk assessment</li> <li>Changes to workflow, staffing level or equipment that increase physical demands without review of implications</li> <li>Inadequate involvement of workers and HSRs in identifying practical controls for heavy materials handling</li> <li>Outdated risk assessments not reflecting current handling practices or equipment</li> </ul>	3H	[REDACTED]	2M
10. Plant, Tools and Maintenance Systems	<ul style="list-style-type: none"> <li>Failure of lifting equipment, trolleys, glass lifters, clamps or cranes due to poor maintenance, leading to dropped loads</li> </ul>	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> <li>• Use of damaged or unsuitable slings, chains or lifting accessories for heavy windows, doors and metal pieces</li> <li>• Inadequate inspection regimes for racking, stillages and glass A-frames storing heavy and fragile materials</li> <li>• Uncontrolled introduction of new plant (e.g. forklifts, hoists, conveyors) without risk assessment or operator training</li> <li>• Lack of tagging or isolation procedures for defective handling equipment</li> </ul>		[REDACTED]	
11. Incident Reporting, Health Monitoring and Continuous Improvement	<ul style="list-style-type: none"> <li>• Under-reporting of near misses and minor strains related to heavy building materials handling, masking systemic issues</li> <li>• Inadequate investigation of incidents involving glass breakage, dropped loads or manual handling injuries</li> <li>• Lack of monitoring for early signs of musculoskeletal disorders amongst workers handling heavy and awkward loads</li> <li>• Failure to implement and verify corrective actions arising from incidents and inspections</li> <li>• Limited use of data and trends to drive improvement in handling systems, equipment selection and work design</li> </ul>	3H	[REDACTED]	2M
12. Emergency Preparedness and Response for Handling Operations	<ul style="list-style-type: none"> <li>• Insufficient planning for emergencies involving dropped heavy loads, glass breakage, structural collapse of stacks or racking, or trapped persons</li> <li>• Lack of specific procedures for managing large glass breakages, including exposure to sharp edges and manual clean-up of heavy fragments</li> <li>• Inadequate first aid coverage and equipment for musculoskeletal injuries,</li> </ul>	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> <li>crush injuries and lacerations related to heavy materials handling</li> <li>Poor communication arrangements for summoning help in remote storage areas, yards or during after-hours unloading</li> <li>Failure to plan rescue methods for suspended or jammed loads during crane or hoist operations</li> </ul>			
13. Environmental Conditions and Work Scheduling	<ul style="list-style-type: none"> <li>Handling heavy glass, roofing rolls, boards and metal pieces in high wind conditions, increasing risk of uncontrolled movement</li> <li>Heat stress or cold stress affecting worker capacity and concentration during intensive manual handling tasks</li> <li>Poor scheduling causing extended periods of high physical demand without adequate breaks</li> <li>Work conducted in wet, muddy or dusty environments increasing slip, trip and respiratory risks during handling of aggregates and brick</li> <li>Night or low-light work reducing visibility when positioning heavy items</li> </ul>	3H		2M
14. Design for Safe Installation and Handling Interfaces	<ul style="list-style-type: none"> <li>Product and project designs that do not consider how heavy components (windows, doors, glass for edgework, metal frames, sanitary ware) will be handled, lifted and installed</li> <li>Lack of built-in lifting points or features on heavy frames, glass units and metal pieces</li> <li>Installation sequencing that increases manual handling demands (e.g. requiring hand-carrying of heavy items through confined or obstructed paths)</li> <li>Design choices resulting in excessive working at height while handling heavy or fragile items</li> </ul>	3H		2M

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SAMPLE

**EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES**

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

**LEGISLATIVE REFERENCES**

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES FOR ANY STATE THAT ARE NOT APPLICABLE

**Queensland & Australian Capital Territory**

Work Health and Safety Act 2011  
 Work Health and Safety Regulations 2011  
 Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>  
 Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>  
 Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>  
 Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

**Victoria**

Occupational Health and Safety Act 2004  
 Occupational Health and Safety Regulations 2017  
 Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>  
 Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

**New South Wales**

Work Health and Safety Act 2011  
 Work Health and Safety Regulations 2025  
 Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>  
 Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-of-codes-of-practice>

**Western Australia**

Work Health and Safety Act 2020  
 Work Health and Safety Regulations 2022  
 Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>  
 Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

**Northern Territory**

Work Health and Safety (National Uniform Legislation) Act 2011  
 Work Health and Safety (National Uniform Legislation) Regulation 2011  
 Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>  
 Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

**Safe Work Australia Links**

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>  
 Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

**South Australia**

Work Health and Safety Act 2012 (SA)  
 Work Health and Safety Regulations 2012 (SA)  
 Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>  
 Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

**Model Codes of Practice**

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

**Tasmania**

Work Health and Safety Act 2012  
 Work Health and Safety (Transitional and Consequential Provisions) Act 2012  
 Work Health and Safety Regulations 2012  
 Work Health and Safety (Transitional) Regulations 2012  
 Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>  
 Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.