

Elevator Installation

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			Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Substitution 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.	Engineering Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	Administrative Change	
								PPE	

Risk Rating & Required Action:	
4A	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.
3H	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
1L	Proceed, following standard operating procedures. Monitor and keep records.

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
Catastrophic	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
Major	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
Moderate	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
Minor	First-aid only, no lost time	negligible delay	Isolated non-conformance
Insignificant	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. Design, Engineering Verification & Regulatory Compliance	<ul style="list-style-type: none"> • Incomplete or incorrect design documentation for elevator frame anchoring, guide rails, rope grippers and screw rod lifts • Non-compliance with NCC (BCA), relevant Australian Standards (e.g. AS 1735 series, AS/NZS 3000, AS/NZS 1170) and WHS Act 2011 duties • Inadequate design verification and certification for new and upgraded elevator installations • Insufficient engineering review for scaffoldless lift installation methods and temporary supports • Inadequate consideration of existing building structure when upgrading old elevators and marrying-up new sections to old systems • Failure to design permanent access, rescue and maintenance provisions in the elevator shaft and machine spaces • Design changes on site subject to formal engineering assessment and approval • Poor integration of fire, lift shaft, emergency egress and essential services within the lift shaft and lobbies 	4A	<ul style="list-style-type: none"> • Implement a formal design management process requiring all elevator designs and upgrades to be prepared, reviewed and signed off by suitably qualified engineers (RPEQ/Chartered where required) • Ensure all designs reference and comply with current NCC, WHS legislation, plant regulations and relevant Australian Standards for lifts and hoisting equipment • Require independent third party engineering verification for critical elements such as elevator frame anchoring, guide rail support, rope grippers, screw rod lift systems and hanging brackets • Establish a controlled design change process including written engineering instructions, revision control and communication to site supervisors before implementation • Undertake structural adequacy assessments of existing shafts, floors and support elements before upgrading old elevators or installing scaffoldless systems • Integrate fire, emergency egress and essential services requirements into the elevator design and verify via design review workshops with building designers and fire engineers • Maintain design risk register documenting identified design-related hazards, decisions and residual risks for commissioning and handover • Require as-built documentation and engineering sign-off prior to commissioning any new, upgraded or modified elevator installation 	3H
2. Project Governance, WHS Leadership & Contractor Management	<ul style="list-style-type: none"> • Lack of clear PCBU roles, responsibilities and accountabilities for multi-contractor elevator projects • Inadequate coordination between builder, elevator contractor, structural engineer, electrical contractor and building owner • Insufficient pre-qualification of elevator installers, riggers, electricians and sub-contractors • Failure to implement and enforce a project WHS management plan for high-risk construction work (e.g. work in shafts, work at heights, energised plant) 	3H	<ul style="list-style-type: none"> • Develop a project-specific WHS management plan clearly defining PCBU responsibilities, consultation arrangements and interfaces for the elevator installation scope • Implement a contractor pre-qualification system assessing WHS performance, competency, licences, insurance and previous experience in elevator installations • Establish formal coordination meetings between principal contractor, elevator company, structural engineers and electrical contractors to manage interfaces and shared risks • Define and communicate WHS expectations, KPIs and escalation processes for safety breaches in contracts and pre-start meetings • Ensure worker participation and consultation through toolbox talks, HSR engagement and feedback channels on system-level issues • Conduct scheduled WHS inspections and audits focused on high-risk activities such as scaffoldless lift installation, frame anchoring and marrying-up sections 	2M

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	<ul style="list-style-type: none"> Poor leadership commitment to WHS leading to shortcuts during critical tasks such as frame anchoring and guide rail installation Inadequate consultation mechanisms with workers and Health and Safety Representatives (HSRs) Lack of systematic monitoring, audits and reviews of elevator installation activities and controls 		<ul style="list-style-type: none"> Require senior management site visits and visible leadership activities to reinforce safe systems of work Review WHS performance at key project milestones and incorporate lessons learned into future elevator projects 	
3. Planning, Sequencing & Integration with Building Works	<ul style="list-style-type: none"> Poor planning of elevator shaft access and installation sequence leading to congestion and unsafe work interfaces Conflict between elevator installation and other trades (e.g. scaffold removal before scaffoldless system is fully engineered and ready) Insufficient allowance for temporary works such as working platforms, edge protection and shaft access systems Rushed installation due to unrealistic program timeframes for frame anchoring, guide rail alignment and car installation Inadequate coordination when marrying-up elevators across multiple floors, causing misalignment or structural overloading Failure to properly stage works for upgrading old elevators, including maintaining safe access routes for building occupants Insufficient planning for after-hours works and noise/vibration impacts during commissioning and testing 	3M	<ul style="list-style-type: none"> Develop a detailed installation methodology and staging plan that is integrated with the principal contractor's overall construction program Use coordination workshops and clash detection reviews to plan interfaces with other trades, crane operations and scaffold erection/removal Plan and document the use of temporary works (platforms, access towers, edge protection, shaft systems) with engineering approval where required Set realistic durations for critical activities (e.g. guide rail plumb and fix, frame anchoring, rope gripper installation) and resist compression of safety-critical tasks Implement a permit-to-work or coordination approval process before major changes such as scaffold removal or switch-over to scaffoldless installation systems Stage upgrade works on old elevators to preserve safe egress, with clear temporary signage and communication to building occupants Plan commissioning, noise-intensive and disruptive tasks for times that minimise risk to occupants and integrate with building management requirements 	2M
4. Structural Integration, Anchoring & Shaft Integrity Management	<ul style="list-style-type: none"> Incorrect anchoring of elevator frame and guide rails into unsuitable or inadequate base materials Unverified capacity of existing building structure to support new lift loads, including dynamic loads of screw rod lifts and rope systems 	4A	<p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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	<ul style="list-style-type: none"> Inadequate control of core-hole cutting and penetration works in the shaft walls and floors Uncontrolled modification of structural elements during upgrade of old elevators Lack of formal inspection and torque verification processes for critical anchors and fixings Hidden structural defects (e.g. spalling concrete, corroded steel) not identified prior to anchoring and marrying-up sections 		[REDACTED]	
5. Plant, Equipment & Materials Management	<ul style="list-style-type: none"> Use of non-compliant or unsuitable lifting equipment, rigging gear and specialised elevator installation tools Inadequate inspection and maintenance systems for hoists, temporary lifting frames and rope handling equipment Improper storage and handling of heavy elevator components (guide rails, car frames, counterweights, screw rods) Lack of system for managing and tracking safety-critical components (e.g. rope grippers, safety braking systems) Use of improvised equipment or tools for shaft access and component installation Failure to isolate and safely manage powered plant within the shaft during installation and upgrade works 		[REDACTED]	2M
6. Competency, Licensing & Training Systems	<ul style="list-style-type: none"> Insufficient competency of installers undertaking complex tasks such as rope gripper installation, screw rod lift set-up and guide rail alignment Unlicensed or inadequately supervised workers performing electrical work associated with elevator systems 	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> Lack of specific training in scaffoldless lift installation methodologies and proprietary systems Inadequate training on safe work in lift shafts, including emergency evacuation and rescue Outdated knowledge of applicable standards and codes for elevator installation and upgrades Insufficient supervisor capability to identify unsafe practices and intervene early 		[REDACTED]	
7. Safe Access, Egress & Shaft Fall-Prevention Systems	<ul style="list-style-type: none"> Unprotected lift shafts presenting fall hazards to workers and other trades Inadequate control of access to shaft openings, machine rooms and car tops Poorly designed or ad-hoc temporary working platforms within the shaft Failure of fall-prevention or restraint systems due to improper design, installation or inspection Unauthorised removal of shaft screens doors or barricades during installation and upgrade activities Inadequate emergency egress from shaft working positions during scaffoldless installation 	4A	[REDACTED]	2M
8. Electrical Safety, Isolation & Control Systems	<ul style="list-style-type: none"> Uncontrolled energisation of elevator drives, screw rod lift motors or control circuits during installation or upgrades Deficient lock-out/tag-out systems for electrical sources associated with new and existing lift equipment Inadequate separation of temporary construction power and permanent elevator supply systems Unclear status of safety circuits, emergency stop systems and rope grippers during commissioning 	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> Exposure to live parts due to incomplete enclosures or temporary wiring arrangements Interface risks between new control systems and existing building management or fire systems during upgrade works 		[REDACTED]	
9. Mechanical Safety, Lifting Operations & Load Management	<ul style="list-style-type: none"> Failure of lifting operations when installing guide rails, elevator frames, car components and counterweights Inadequate lift plans for heavy or awkward components in constrained shafts Overloading of temporary hoists, lifting frames or screw rod lift mechanisms Poor control of suspended loads within the shaft, creating crush and impact risks Inadequate mechanical guarding for moving parts during testing and commissioning System failures in rope winches, safety gears or overspeed protection during initial set-up and testing 	4A	[REDACTED]	2M
10. Upgrade, Demolition & Decommissioning of Existing Elevators	<ul style="list-style-type: none"> Uncontrolled release of stored energy when removing old counterweights, ropes or screw rod components Inadequate planning for removal of asbestos-containing materials or other hazardous substances in old lift shafts and machine rooms Lack of system for isolating and decommissioning redundant electrical and mechanical systems Uncontrolled removal of structural or safety elements when upgrading old elevators Unclear access and egress arrangements for building occupants during partial shutdown of elevator services 	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> Inadequate documentation of existing conditions leading to unforeseen hazards during demolition 			
11. Emergency Preparedness, Rescue & Incident Management	<ul style="list-style-type: none"> Lack of clear emergency response procedures for incidents within elevator shafts or on car tops Inadequate rescue capabilities for workers injured or incapacitated inside shafts during scaffoldless installation Delayed response to incidents due to poor communication or unclear site location of shaft work areas Insufficient coordination with emergency services regarding access to shafts and machine rooms Failure to learn from near misses and incidents associated with elevator installations and upgrades 	3H	[REDACTED]	1L
12. WHS Documentation, Permits & Change Management	<ul style="list-style-type: none"> Incomplete or inconsistent WHS documentation for elevator projects, leading to unclear risk controls Work commencing without required permits for high-risk construction work (e.g. work at height, confined spaces like shaft environments, electrical work) Uncontrolled changes to installation methods, such as switching to scaffoldless lift installation without updated risk assessment Poor version control of procedures, drawings and lift installation manuals Inadequate communication of procedural changes to workers and supervisors 	3H	[REDACTED]	2M
13. Health, Fatigue, Manual Handling & Psychosocial Risk Management	<ul style="list-style-type: none"> Manual handling of heavy and awkward elevator components such as guide rails, doors and frame sections Repetitive tasks during anchor installation, shaft drilling and cable 	3H	[REDACTED]	2M

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	<ul style="list-style-type: none"> pulling leading to musculoskeletal disorders • Fatigue due to long shifts, after-hours commissioning or tight project deadlines • Stress and psychosocial strain associated with confined shaft work, working at height and schedule pressure • Insufficient systems to manage noise, dust and vibration exposures in shafts and machine rooms 		[REDACTED]	
14. Quality Assurance, Testing & Commissioning Governance	<ul style="list-style-type: none"> • Incomplete testing of safety-critical systems such as rope grippers, overspeed governors and door interlocks • Commissioning under time pressure leading to bypassing of safety functions or incomplete documentation • Lack of formal handover process resulting in unclear status of defects or outstanding safety work • Inadequate verification that system changes during commissioning still meet design and legislative requirements • Poor record-keeping of test results, certifications and calibration equipment 	3H	[REDACTED]	1L
15. Ongoing Maintenance Interface & Lifecycle WHS Considerations	<ul style="list-style-type: none"> • Failure to consider future maintenance access when designing and installing elevator systems • Insufficient information provided to building owners about WHS-critical maintenance requirements • Inadequate integration of the new or upgraded elevator into the building's asset management and maintenance systems • Lack of clarity on responsibilities for ongoing inspection of safety features such as rope grippers and buffers 	2M	[REDACTED]	1L

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	<ul style="list-style-type: none"> Poor communication of residual risks identified during installation to future maintenance providers 			

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-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/factsheets-and-resources/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.