Guardrail and Edge Protection Installation

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

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE 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:

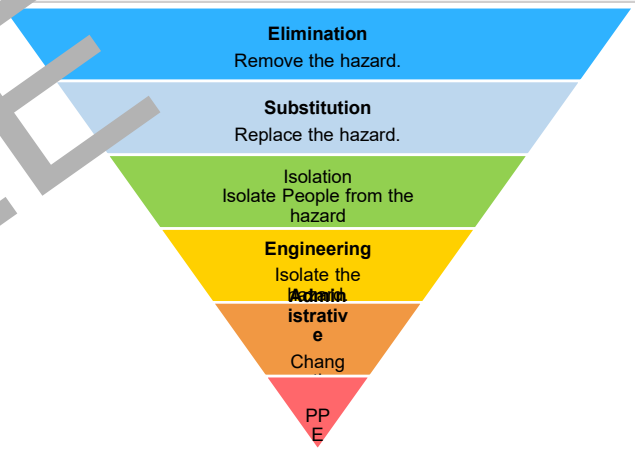
CLIENT OR PRINCIPAL CONTRACTOR DETAILS

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
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE		
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Rev before work
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACU	2M MO RATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 H	1L LOW	Monitor and keep records.

HIERARCHY OF CONTROLS



Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. E inate the hazar redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or hi er-level authorisati is required.
3H	Review and approve additional c rols b ask arts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in ace and effe ive. 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. WHS Governance, Legal Compliance and PCBU Duties	• Inadequate understanding of WHS Act 2011, WHS Regulations and relevant Codes of Practice relating to falls and construction work • Lack of clear allocation of PCBU, officer and worker duties for guardrail and edge protection activities • Absence of a documented WHS management system covering guardrail and edge protection installation and inspection • Failure to consult, cooperate and coordinate with other duty holders (principal contractors, subcontractors, building owners) • Non-compliance with Australian Standards for guardrails, handrails and edge protection (e.g. AS/NZS 4994 series, AS 1657, AS/NZS 1170 where applicable) • Inadequate monitoring of legislative and standards updates relating to fall prevention, temporary edge protection and roof work • Failure to integrate WHS requirements into contracts and procurement documents for guardrail systems	4A	• Establish and maintain a WHS management system aligned with WHS Act 2011, WHS Regulations and relevant Australian Standards for guardrails, edge protection, handrails and parapets • Define and document WHS roles, responsibilities and accountabilities for officers, managers, supervisors and workers involved in guardrail and edge protection activities • Incorporate explicit legal and standards compliance requirements for edge protection (including temporary roof edge systems and open-hole protection) into company policies and procedures • Implement a formal process to identify and review applicable legislation, Codes of Practice and Standards at least annually and whenever changes are notified • Include WHS compliance clauses in contracts with designers, suppliers and installers of guardrails and temporary edge protection systems • Ensure documented consultation, cooperation and coordination arrangements are in place with principal contractors, other PCBUs and building owners for any work involving roof edges, openings or elevated platforms • Regularly audit the WHS management system and site practices against legal obligations for preventing falls, including requirements for perimeter guardrails, parapets and eave protection	3H
2. Design, Engineering and Selection of Guardrail and Edge Protection Systems	• Use of guardrail or edge protection systems not designed by a competent person or not fit-for-purpose • Incompatible guardrail components (posts, rails, fixings, counterweights) leading to structural failure • Inadequate design for site-specific loads, wind conditions or roof geometry • Failure to design effective systems for roof edge protection, eave protection and open-hole protection (including voids, stairwells and service penetrations)	4A	• Mandate that all permanent and temporary guardrail and edge protection systems are selected from engineered, certified designs compliant with relevant Australian Standards and manufacturer specifications • Require design verification by a suitably qualified engineer for non-standard or site-specific edge protection (e.g. complex roof geometries, parapet extensions, atypical fixings) • Develop a design review procedure that assesses load ratings, wind loads, intended use and interface with building structures before procurement and installation • Implement a design requirement for all roof edge, eave and open-hole protection to provide continuous, robust barriers with compliant top-rail, mid-rail, toe-board or mesh as required • Prohibit the use of improvised or non-certified guardrail, handrail or parapet solutions through clear policy and supervision • Specify corrosion-resistant materials and coatings in design criteria, including minimum durability classes for coastal, marine or corrosive industrial environments	2M

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	• Reliance on improvised or non-engineered solutions (e.g. makeshift handrails, incomplete parapets) • Lack of design consideration for corrosion resistance, particularly in coastal or industrial environments • Insufficient detailing for safe interfaces with scaffolds, access platforms and temporary fencing		• Ensure design documentation clearly addresses fixings, anchorage points, maximum spacings and compatibility with scaffolds, temporary platforms and edge protection fencing	
3. Procurement, Supplier Management and Product Verification	• Purchase of substandard or counterfeit guardrail components and temporary edge protection systems • Lack of verification that supplied products meet relevant certifications and load ratings • Inconsistent supply of compatible components leading to mixed systems with unknown performance • Inadequate supplier evaluation regarding quality control, testing and traceability • Procurement of systems not suited to environmental conditions (e.g. poor corrosion resistance) • Failure to obtain and maintain product documentation (engineering drawings, test certificates, installation manuals) • Use of hire or leased equipment that has not been inspected, maintained or certified	3H	• Implement a procurement procedure that requires evidence of certification, testing and compliance to relevant standards for all guardrail and edge protection products • Pre-qualify and approve suppliers based on documented quality systems, traceability of components and history of regulatory compliance • Require product data sheets, installation instructions, engineering certificates and load rating documentation for every guardrail and edge protection system purchased or hired • Standardise on a limited range of compatible systems and components to reduce the risk of mixed, non-compliant assemblies • Include corrosion performance criteria and environmental suitability in tender and procurement specifications for handrails, guardrails and perimeter systems • Ensure hire agreements specify inspection, maintenance and certification requirements for temporary guardrail and edge protection systems prior to delivery • Maintain a central register of approved products, suppliers and corresponding technical documentation accessible to supervisors and planners	2M
4. Planning, Design Review and Pre-Construction Risk Management	• Inadequate early-stage planning for fall prevention during construction, installation and future maintenance • Failure to identify all areas requiring guardrail or edge protection (roof edges, eaves, balconies, open holes, service penetrations, stair voids) • Over-reliance on personal fall arrest systems instead of higher-order controls such as guardrails and parapets	4A	[redacted]	2M

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	• Lack of coordination between designers, builders and installers leading to gaps in perimeter protection • Insufficient allowance for temporary guardrail or edge protection during staged works, demolition or refurbishment • No consideration of sequencing, so guardrail or parapet protection is removed prematurely or installed too late • Inadequate planning for access to inspect and maintain guardrails and handrails over the lifecycle of the structure		[redacted]	
5. Structural Adequacy and Fixing Systems to Host Structures	• Failure of guardrail or edge protection due to inadequate fixings, anchors or support structure • Overloading of fragile or non-structural building elements (e.g. eaves, lightweight roofs, parapet cappings) • Unverified use of chemical anchors, screw fixings or clamp s[redacted]on unsuitable substrate[redacted] • Movement or def[redacted]ction of supporting structures compro[redacted] performance • Lack of engineering verification f[redacted] fixing into existing or dete[redacted] structures • Unrecorded modifications to building elements that reduce capacity for edge protection attachment	4A	[redacted]	2M
6. Inspection, Testing and Maintenance of Guardrails and Edge Protection	• Corroded or defective handrails, guardrails and edge protection components remaining in service • Lack of systematic inspection leading to undetected damage, loosened fixings or missing components • No formal system for tagging, recording and tracking inspection status of temporary edge protection	4A	[redacted]	2M

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	• Inadequate response to identified defects, including delayed repairs or temporary removal without replacement • Failure to re-inspect guardrails after impact, modification, severe weather or nearby demolition activities • Inconsistent maintenance practices across different sites and contractors		[redacted]	
7. Competency, Licensing, Training and Supervision	• Guardrail and edge protection installed by workers without appropriate competency or supervision • Lack of training on specific engineered systems, including temporary roof edge protection and eave protection systems • Inadequate understanding of design limitations, load ratings and correct assembly sequences • Supervisors not competent to verify compliance and structural adequacy of installed systems • No refresher trai[redacted], leading to skill fade and non-com[redacted]ant practices over time • Insufficient induction for subcontrac[redacted]rs regarding company standards for perimeter and open-hole [redacted]	[redacted]H	[redacted]	2M
8. Site Access, Traffic Management and Work Area Segregation	• Unauthorised access to areas where guardrails or edge protection are incomplete or being modified • Workers or other trades interfering with installed guardrails to gain access or move materials • Vehicle and plant impacts on perimeter guardrails, parapets or temporary edge protection fencing • Inadequate exclusion zones below work at height where components or tools may fall	3H	[redacted]	2M

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	• Poorly controlled access around open holes or roof edges before permanent protection is in place		[redacted]	
9. Management of Adjacent Work, Other Trades and Subcontractors	• Other trades removing or altering guardrails and edge protection to facilitate their tasks • Conflicting work activities that compromise the integrity of perimeter guardrails or roof edge protection (e.g. cladding, glazing, crane lifts) • Lack of clarity about who is responsible for maintaining edge protection in shared work areas • Sequencing of trades leading to temporary removal of guardrails without equivalent protection • Inadequate communication of changes to edge protection systems across multiple subcontractors and shifts	3H	[redacted]	2M
10. Environmental and Site Condition Management	• Adverse weather (wind, rain, lightning affecting stability of temporary guardrail and edge protection fencing • Build-up of debris, corrosion or contaminants on handrails and guardrails reducing integrity resistance • Ground subsidence or slab movement undermining free-standing or counterweighted systems • Water ingress, chemical exposure or coastal atmosphere accelerating corrosion of metal guardrails and fixings • Temporary infill panels, toe-boards or mesh removed during cleaning or maintenance and not reinstated	3H	[redacted]	2M
11. Emergency Preparedness, Incident Management and Rescue	• Lack of planning for fall incidents occurring despite guardrail and edge protection systems • Inadequate emergency access routes due to positioning of guardrails, parapets or temporary edge protection fencing	3H	[redacted]	2M

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	• Workers and supervisors untrained in rescue procedures for falls near roof edges or open holes • Delayed response to structural failures or near misses involving guardrails and handrails • Failure to investigate incidents and near misses to identify systemic issues with edge protection design, installation or inspection		[redacted]	
12. Documentation, Records and Information Management	• Incomplete or inaccurate records of guardrail and edge protection installations, inspections and modifications • Loss of engineering certifications, drawings and installation instructions over the project lifecycle • Workers not having access to current procedures, risk assessments and manufacturer guidance • Inconsistent documentation standards across different projects and subcontractors • Inability to demonstrate compliance to regulators or clients due to poor record keeping	2M	[redacted]	1L
13. Consultation, Communication and Worker Engagement	• Workers not consulted about practical issues with guardrail and edge protection systems, leading to informal and unsafe modifications • Poor communication of changes to perimeter protection, open-hole coverings or roof edge controls • Language, literacy or cultural barriers resulting in misunderstanding of requirements for maintaining guardrails and parapets • Workers reluctant to report defects or near misses involving guardrails due to fear of blame or reprisal	3H	[redacted]	2M

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			[redacted]	
14. Change Management, Temporary Works and Decommissioning of Edge Protection	• Uncontrolled changes to building design, roof layout or work methods affecting guardrail adequacy • Removal or relocation of temporary edge protection fencing and roof edge protection without equivalent controls • Lack of formal process for managing temporary works involving parapets, openings or staged demolition • Edge protection systems left in a partially dismantled or unstable condition between shifts • No final verification when decommissioning temporary guardrail at project completion	4A	[redacted]	2M

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

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

Northern Territory
Work Health and Safety (National Uniform Legislation) Act 2011
Work Health and Safety (National Uniform Legislation) Regulations 2011
Legislation NT: https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws
Codes of Practice NT: https://worksafe.nt.gov.au/forms-and-resources/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

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.

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

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

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

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