

## Reaction To Sudden Soil Collapse Risk Assessment

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>	
<b>Risk Rating &amp; Required Action:</b>								<b>Notes on Hierarchy of Controls:</b>	
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.								Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H Review and approve additional controls before task starts. Senior supervisor sign-off needed.								1. <b>Eliminate</b>	
2M Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
1L Proceed, following standard operating procedures. Monitor and keep records.								3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
<b>Consequence Scale:</b>								Always document <b>why</b> a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
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				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

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. Site Preparation	Uneven terrain, Inadequate signage	3H	<ul style="list-style-type: none"> <li>- Conduct a site survey to assess terrain conditions</li> <li>- Place clear signage indicating construction zones</li> <li>- Use safety barriers to delineate safe walkways</li> <li>- Train workers on site-specific hazards</li> <li>- Develop emergency procedures for sudden terrain shifts</li> <li>- Assign a site safety supervisor</li> <li>- Install temporary lighting for better visibility</li> <li>- Regularly inspect the marked pathways</li> <li>- Ensure all workers wear appropriate PPE</li> <li>- Control site access to authorised personnel only</li> </ul>	2M
2. Equipment Setup	Incorrect equipment calibration, Failure to secure equipment	4H	<ul style="list-style-type: none"> <li>- Verify equipment calibration before use</li> <li>- Ensure all equipment is routinely serviced</li> <li>- Use trained operators to set up machinery</li> <li>- Secure equipment firmly to the ground</li> <li>- Conduct a pre-operation safety checklist</li> <li>- Introduce a lockout/tagout procedure</li> <li>- Provide training on specific equipment setup</li> <li>- Conduct regular audits on equipment setup</li> <li>- Maintain a detailed log of equipment data</li> <li>- Ensure backup equipment is available</li> </ul>	2M
3. Soil Excavation	Sudden soil collapse, Equipment malfunction	4A	<ul style="list-style-type: none"> <li>- Assess soil composition before excavation</li> <li>- Use shoring or support systems for trenches</li> <li>- Ensure real-time ground monitoring systems are operational</li> <li>- Conduct regular inspections of the excavation site</li> <li>- Implement a communication protocol for emergencies</li> <li>- Restrict excavation during adverse weather conditions</li> <li>- Train workers on safe excavation techniques</li> <li>- Monitor equipment performance during operation</li> </ul>	2M

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			<ul style="list-style-type: none"> <li>- Provide immediate first-aid responses capability</li> <li>- Regularly recalibrate ground monitoring sensors</li> </ul>	
4. Debris Removal	Falling debris, Manual handling injuries	3H	<ul style="list-style-type: none"> <li>- Establish exclusion zone around work area</li> <li>- Use proper manual handling techniques</li> <li>- Wear appropriate PPE (hard hat, safety glasses, gloves)</li> <li>- Use tools and equipment designed for debris removal</li> <li>- Communicate with team members</li> <li>- Clear debris from walkways</li> <li>- Inspect debris for sharp objects</li> <li>- Use designated disposal areas</li> <li>- Keep work area clean and organized</li> <li>- Use proper lifting techniques</li> <li>- Avoid overexertion</li> <li>- Use mechanical aids when possible</li> <li>- Inspect equipment before use</li> <li>- Follow manufacturer instructions</li> <li>- Use proper stacking techniques</li> <li>- Avoid carrying heavy loads</li> <li>- Use proper walking techniques</li> <li>- Avoid running or rushing</li> <li>- Use proper bending techniques</li> <li>- Avoid twisting the body</li> <li>- Use proper reaching techniques</li> <li>- Avoid overreaching</li> <li>- Use proper carrying techniques</li> <li>- Avoid carrying loads that obstruct vision</li> <li>- Use proper walking techniques on uneven surfaces</li> <li>- Avoid walking on debris</li> <li>- Use proper climbing techniques</li> <li>- Avoid climbing on unstable surfaces</li> <li>- Use proper ladder techniques</li> <li>- Avoid overloading ladders</li> <li>- Use proper tie-off techniques</li> <li>- Avoid working at heights without proper fall protection</li> <li>- Use proper communication techniques</li> <li>- Avoid distractions</li> <li>- Use proper signaling techniques</li> <li>- Avoid unauthorized personnel in work area</li> <li>- Use proper lockout/tagout techniques</li> <li>- Avoid working on energized equipment</li> <li>- Use proper safety techniques</li> <li>- Avoid complacency</li> <li>- Use proper risk assessment techniques</li> <li>- Avoid taking shortcuts</li> <li>- Use proper decision-making techniques</li> <li>- Avoid rushing</li> <li>- Use proper planning techniques</li> <li>- Avoid poor time management</li> <li>- Use proper prioritization techniques</li> <li>- Avoid procrastination</li> <li>- Use proper delegation techniques</li> <li>- Avoid overcommitment</li> <li>- Use proper communication techniques</li> <li>- Avoid misunderstandings</li> <li>- Use proper documentation techniques</li> <li>- Avoid incomplete records</li> <li>- Use proper reporting techniques</li> <li>- Avoid delayed reporting</li> <li>- Use proper investigation techniques</li> <li>- Avoid blaming others</li> <li>- Use proper corrective action techniques</li> <li>- Avoid repeating mistakes</li> <li>- Use proper prevention techniques</li> <li>- Avoid complacency</li> <li>- Use proper safety techniques</li> <li>- Avoid taking shortcuts</li> <li>- Use proper decision-making techniques</li> <li>- Avoid rushing</li> <li>- Use proper planning techniques</li> <li>- Avoid poor time management</li> <li>- Use proper prioritization techniques</li> <li>- Avoid procrastination</li> <li>- Use proper delegation techniques</li> <li>- Avoid overcommitment</li> <li>- Use proper communication techniques</li> <li>- Avoid misunderstandings</li> <li>- Use proper documentation techniques</li> <li>- Avoid incomplete records</li> <li>- Use proper reporting techniques</li> <li>- Avoid delayed reporting</li> <li>- Use proper investigation techniques</li> <li>- Avoid blaming others</li> <li>- Use proper corrective action techniques</li> <li>- Avoid repeating mistakes</li> <li>- Use proper prevention techniques</li> <li>- Avoid complacency</li> </ul>	1L
5. Structural Support Installation	Collapse during installation, Injuries from manual handling	4A	<ul style="list-style-type: none"> <li>- Use proper installation techniques</li> <li>- Inspect structural supports before installation</li> <li>- Use proper manual handling techniques</li> <li>- Wear appropriate PPE (hard hat, safety glasses, gloves)</li> <li>- Use tools and equipment designed for structural support installation</li> <li>- Communicate with team members</li> <li>- Clear debris from walkways</li> <li>- Inspect debris for sharp objects</li> <li>- Use designated disposal areas</li> <li>- Keep work area clean and organized</li> <li>- Use proper lifting techniques</li> <li>- Avoid overexertion</li> <li>- Use mechanical aids when possible</li> <li>- Inspect equipment before use</li> <li>- Follow manufacturer instructions</li> <li>- Use proper stacking techniques</li> <li>- Avoid carrying heavy loads</li> <li>- Use proper walking techniques</li> <li>- Avoid running or rushing</li> <li>- Use proper bending techniques</li> <li>- Avoid twisting the body</li> <li>- Use proper reaching techniques</li> <li>- Avoid overreaching</li> <li>- Use proper carrying techniques</li> <li>- Avoid carrying loads that obstruct vision</li> <li>- Use proper walking techniques on uneven surfaces</li> <li>- Avoid walking on debris</li> <li>- Use proper climbing techniques</li> <li>- Avoid climbing on unstable surfaces</li> <li>- Use proper ladder techniques</li> <li>- Avoid overloading ladders</li> <li>- Use proper tie-off techniques</li> <li>- Avoid working at heights without proper fall protection</li> <li>- Use proper communication techniques</li> <li>- Avoid distractions</li> <li>- Use proper signaling techniques</li> <li>- Avoid unauthorized personnel in work area</li> <li>- Use proper lockout/tagout techniques</li> <li>- Avoid working on energized equipment</li> <li>- Use proper safety techniques</li> <li>- Avoid complacency</li> <li>- Use proper risk assessment techniques</li> <li>- Avoid taking shortcuts</li> <li>- Use proper decision-making techniques</li> <li>- Avoid rushing</li> <li>- Use proper planning techniques</li> <li>- Avoid poor time management</li> <li>- Use proper prioritization techniques</li> <li>- Avoid procrastination</li> <li>- Use proper delegation techniques</li> <li>- Avoid overcommitment</li> <li>- Use proper communication techniques</li> <li>- Avoid misunderstandings</li> <li>- Use proper documentation techniques</li> <li>- Avoid incomplete records</li> <li>- Use proper reporting techniques</li> <li>- Avoid delayed reporting</li> <li>- Use proper investigation techniques</li> <li>- Avoid blaming others</li> <li>- Use proper corrective action techniques</li> <li>- Avoid repeating mistakes</li> <li>- Use proper prevention techniques</li> <li>- Avoid complacency</li> </ul>	2M
6. Environmental Monitoring	Inadequate monitoring equipment, Delay in response to environmental changes	3H	<ul style="list-style-type: none"> <li>- Use proper monitoring techniques</li> <li>- Inspect monitoring equipment before use</li> <li>- Follow manufacturer instructions</li> <li>- Use proper recording techniques</li> <li>- Avoid incomplete records</li> <li>- Use proper reporting techniques</li> <li>- Avoid delayed reporting</li> <li>- Use proper investigation techniques</li> <li>- Avoid blaming others</li> <li>- Use proper corrective action techniques</li> <li>- Avoid repeating mistakes</li> <li>- Use proper prevention techniques</li> <li>- Avoid complacency</li> </ul>	2M

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7. Emergency Evacuation Drills	Panic during drills, Unfamiliarity with evacuation routes	3H		1L
8. Resolving Soil Collapse Incidents	Secondary collapse, Injury from falling objects	4A		2M
9. Communication System Setup	Communication breakdown, Inaudible communication due to noise	3H		2M

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10. Worker Training and Education	Lack of awareness of soil risks, Improper handling of equipment	3H		1L
11. Incident Reporting and Investigation	Delayed incident reporting, Inaccurate incident analysis	3H		2M
12. Soil Stabilisation Techniques	Improper application of stabilisation, Environmental impact	4A		2M

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13. Machinery Maintenance	Mechanical failure, Inadequate lubrication	3H		1L
14. Emergency Medical Response	Delay in medical response, Insufficient medical supplies	3H		2M
15. Post-Operation Review	Overlooking potential improvements, Failure to document lessons learnt	2M		1L

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			<div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	

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 IF 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 2017

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) Regulations 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>

### 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

### 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.