

Excavate Site Risk Assessment

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

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON 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	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE			Substitution Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE			Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE			Engineering Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH			Administrative Change	
						1L LOW	Monitor and keep records.	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:

- Eliminate
- Substitute
- Isolate
- Engineering
- Administrative
- 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. Preparation	Slippery surfaces, Incorrect tools	3H	<ul style="list-style-type: none"> - Conduct site inspection and remove debris - Ensure correct tools are available and ready for use - Use anti-slip mats where necessary - Conduct tool inspection and replace any worn or damaged tools - Provide training on tool usage - Clearly mark and signpost any hazardous areas - Limit access to essential personnel only - Review and follow Safe Work Method Statements - Utilise personal protective equipment (PPE) appropriate to the job - Conduct daily safety briefings 	2M
2. Site Access	Unauthorised access, Traffic congestion	4M	<ul style="list-style-type: none"> - Establish controlled site entry and exit points - Use signage and barriers to direct pedestrian and vehicle flow - Implement a traffic management plan - Appoint trained traffic controllers - Provide high visibility clothing for all personnel - Use traffic cones and barriers to separate work areas - Conduct site induction for new workers - Install surveillance cameras for monitoring - Restrict access to registered personnel only - Communicate access protocols to all staff 	2M
3. Excavation Setup	Equipment failure, Ground collapse	4A	<ul style="list-style-type: none"> - Conduct pre-start equipment checks - Use properly maintained and suitable machinery - Implement engineering controls for ground support - Regularly inspect excavation area stability - Avoid excavation near unstable or waterlogged ground - Consult with a geotechnical engineer if needed - Keep clear zones around excavation with barriers - Install trench boxes where appropriate 	2M

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			<ul style="list-style-type: none"> - Conduct equipment operator training - Develop an emergency rescue plan 	
4. Digging Phase	Striking underground services, Machinery incidents	4A	<ul style="list-style-type: none"> - Conduct equipment operator training - Develop an emergency rescue plan - Implement a strict safety protocol for digging operations - Use ground-penetrating radar (GPR) to identify underground services - Establish a safe digging zone and maintain clear boundaries - Assign a dedicated spotter to monitor for underground utilities - Use hand-dug trenches for initial exploration - Implement a permit-to-dig system - Regularly inspect equipment for safety features - Provide comprehensive safety training for all personnel - Establish a clear communication system between the digger and the spotter - Use trench shields or boxes for shoring - Implement a strict no-go zone for unauthorized personnel - Regularly inspect trench walls for signs of collapse - Use proper shoring techniques for deep trenches - Implement a strict safety protocol for trenching operations - Use trench shields or boxes for shoring - Implement a strict no-go zone for unauthorized personnel - Regularly inspect trench walls for signs of collapse - Use proper shoring techniques for deep trenches 	3H
5. Material Handling	Manual handling injuries, Falling objects	3H	<ul style="list-style-type: none"> - Use proper lifting techniques - Implement a strict safety protocol for material handling - Use mechanical lifting equipment (hoists, cranes) - Establish a safe material handling zone - Assign a dedicated spotter to monitor for falling objects - Use hand-dug trenches for initial exploration - Implement a permit-to-dig system - Regularly inspect equipment for safety features - Provide comprehensive safety training for all personnel - Establish a clear communication system between the digger and the spotter - Use trench shields or boxes for shoring - Implement a strict no-go zone for unauthorized personnel - Regularly inspect trench walls for signs of collapse - Use proper shoring techniques for deep trenches - Implement a strict safety protocol for trenching operations - Use trench shields or boxes for shoring - Implement a strict no-go zone for unauthorized personnel - Regularly inspect trench walls for signs of collapse - Use proper shoring techniques for deep trenches 	2M
6. Site Monitoring	Environmental hazards, Uncontrolled access	3H	<ul style="list-style-type: none"> - Implement a strict safety protocol for site monitoring - Use mechanical lifting equipment (hoists, cranes) - Establish a safe material handling zone - Assign a dedicated spotter to monitor for falling objects - Use hand-dug trenches for initial exploration - Implement a permit-to-dig system - Regularly inspect equipment for safety features - Provide comprehensive safety training for all personnel - Establish a clear communication system between the digger and the spotter - Use trench shields or boxes for shoring - Implement a strict no-go zone for unauthorized personnel - Regularly inspect trench walls for signs of collapse - Use proper shoring techniques for deep trenches - Implement a strict safety protocol for trenching operations - Use trench shields or boxes for shoring - Implement a strict no-go zone for unauthorized personnel - Regularly inspect trench walls for signs of collapse - Use proper shoring techniques for deep trenches 	1L

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7. Debris Removal	Airborne dust, Inadequate waste disposal	3H		2M
8. Site Restoration	Inconsistent land levels, Poor contamination	4A		2M
9. Equipment Shutdown	Equipment malfunction, Improper shutdown	3H		1L

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10. Site Inspection	Missed hazards, Inadequate documentation	3H		2M
11. Communication	Information silos, Miscommunication	3H		1L
12. Weather Considerations	Extreme temperatures, Adverse weather conditions	4A		2M

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13. Health Monitoring	Exposure to hazardous substances, Fatigue	3H		2M
14. Chemical Use	Chemical spills, Fume inhalation	3H		2M
15. Emergency Response	Injury incidents, Natural disasters	4A		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 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.