

## Piling Operations 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<br>HIGH     | 3<br>HIGH     | 4<br>ACUTE    | 4<br>ACUTE | 4<br>ACUTE   |                |                                   | <b>Elimination</b><br>Remove the hazard.           |
| LIKELY         | 2<br>MODERATE | 3<br>HIGH     | 3<br>HIGH     | 4<br>ACUTE | 4<br>ACUTE   | 4A<br>ACUTE    | DO NOT PROCEED                    | <b>Substitution</b><br>Replace the hazard.         |
| POSSIBLE       | 1<br>LOW      | 2<br>MODERATE | 3<br>HIGH     | 4<br>ACUTE | 4<br>ACUTE   | 3H<br>HIGH     | Review before work starts.        | <b>Isolation</b><br>Isolate People from the hazard |
| UNLIKELY       | 1<br>LOW      | 1<br>LOW      | 2<br>MODERATE | 3<br>HIGH  | 4<br>ACUTE   | 2M<br>MODERATE | Ensure control measures in place. | <b>Engineering</b><br>Isolate the hazard           |
| RARE           | 1<br>LOW      | 1<br>LOW      | 2<br>MODERATE | 3<br>HIGH  | 3<br>HIGH    | 1L<br>LOW      | Monitor and keep records.         | <b>Administrative</b><br>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. Preparation      | inadequate planning, lack of communication | 3H           | <ul style="list-style-type: none"> <li>- Develop a detailed plan of operations</li> <li>- Conduct a pre-start meeting to communicate the plan with all personnel</li> <li>- Ensure all team members are aware of their responsibilities</li> <li>- Review and update safety protocols regularly</li> <li>- Prepare emergency response plans specifically for the site</li> <li>- Schedule regular meetings to keep communication open</li> <li>- Allocate adequate resources to each task</li> <li>- Confirm that all tools and equipment are available and checked</li> <li>- Review weather forecast and plan accordingly</li> <li>- Implement a sign-off system for task readiness</li> </ul> | 2M            |
| 2. Site Access      | vehicle collision, pedestrian injury       | 4H           | <ul style="list-style-type: none"> <li>- Implement designated entry and exit points</li> <li>- Set up traffic controls including signage and barriers</li> <li>- Schedule deliveries to avoid peak traffic times</li> <li>- Ensure access routes are clear from obstructions</li> <li>- Use spotters to guide vehicles safely</li> <li>- Conduct regular inspections of access pathways</li> <li>- Provide site maps to all workers</li> <li>- Train workers on pedestrian safety practices</li> <li>- Monitor and enforce speed limits on site</li> <li>- Introduce pedestrian-only areas where possible</li> </ul>   | 2M            |
| 3. Equipment Setup  | equipment failure, incorrect setup         | 4A           | <ul style="list-style-type: none"> <li>- Use equipment only as per manufacturer's instructions</li> <li>- Conduct thorough pre-operation inspections</li> <li>- Ensure operators are certified and trained</li> <li>- Maintain a log of equipment maintenance and inspections</li> <li>- Use buddy systems or additional supervision during setup</li> <li>- Address any issues identified immediately</li> <li>- Follow a standard operating procedure for setup</li> <li>- Ensure all equipment is grounded correctly</li> </ul>   | 2M            |

| 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 |
|                               |                                       |              | <ul style="list-style-type: none"> <li>- Provide additional support for complex setups</li> <li>- Conduct a test run before full operation</li> </ul>   |               |
| 4. Personnel Training         | lack of training, miscommunication    | 3H           | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> | 1L            |
| 5. Pre-Operational Inspection | unnoticed faults, improper inspection | 3H           | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>                   | 1L            |
| 6. Pile Driving               | equipment failure, projectile debris  | 4A           | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>   | 2M            |

| 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 |
|                       |                                      |              |  |               |
| 7. Pile Testing       | structural failure, improper testing | 3H           |  | 2M            |
| 8. Demobilisation     | incomplete tasks, damaged equipment  | 3H           |  | 1L            |
| 9. Emergency Response | delayed response, lack of resources  | 4A           |  | 2M            |

| 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 |
|                              |                                       |              |  |               |
| 10. Post-Operation Review    | unresolved issues, poor documentation | 3H           |  | 1L            |
| 11. Environmental Management | pollution, habitat disruption         | 4A           |  | 2M            |
| 12. Working at Heights       | falls from heights, dropped objects   | 4A           |  | 2M            |

| 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 |
|                     |  |              |  |               |
| 13. Confined Spaces | oxygen deficiency, toxic atmosphere                    | 4A           |  | 2M            |
| 14. Manual Handling | musculoskeletal injuries / improper lifting techniques | 3H           |  | 1L            |
| 15. Noise Control   | hearing damage, communication problems                 | 3H           |  | 2M            |

| 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 |
|                          |                                   |              | <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>   |               |
| 16. Hazardous Substances | chemical exposure, inadequate PPE | 4A           | <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> | 2M            |
| 17. Electrical Safety    | electric shock, fires             | 4A           | <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> | 2M            |
| 18. Weather Conditions   | severe weather, heat stress       | 4A           | <div></div> <div></div> <div></div>   | 2M            |

| 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 |
|                      |   |              |  |               |
| 19. Site Security    | unauthorised access, theft of materials | 3H           |  | 1L            |
| 20. Waste Management | contaminated waste, inadequate disposal | 4A           |  | 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 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.