

Excavation & Earthmoving SWMS Cheatsheet

All 20 hazards & controls for bulk earthworks, trenching and site excavation.

1. Trench or excavation collapse

- Protective system (shoring, battering or benching) designed for depth and soil type
- No entry to excavations over 1.5 metres without a protective system
- Spoil and materials kept back from the excavation edge
- Daily inspection by a competent person before entry

3. Powered mobile plant movement (excavators, trucks, loaders)

- Exclusion zones maintained around operating plant
- No ground personnel inside the machine swing radius
- Reversing alarms fitted and spotters used for all reversing movements

2. Contact with underground services during machine excavation

- Dial Before You Dig search completed and results on site
- Hand potholing within 500mm of any marked service before machine digging
- Standby spotter during all machine excavation near services

4. Fall into an open excavation

- Barricades or hoarding placed around open excavations
- Covers fitted over unattended holes and trenches
- Edge protection used where the public or other trades are nearby

5. Confined space hazards in deep or enclosed excavations

- Excavation assessed for confined space classification before entry
- Atmospheric testing conducted before entry into deep or enclosed excavations
- Confined space permit and standby person used where required
- Rescue plan and equipment in place before entry

6. Contact with energised underground electrical cables

- Dial Before You Dig results cross-checked with a cable locator before digging near marked electrical services
- Excavation near known electrical services treated as live until proven isolated
- Hand digging only within the exclusion zone of marked electrical services
- Standby person present while electrical services are exposed

7. Strike on pressurised gas mains or piping

- Gas authority notified and asset owner consulted before excavating near gas mains
- Hand exposure only within the tolerance zone of marked gas services
- Work stopped and area evacuated immediately if a gas line is struck or damaged

8. Contaminated or flammable atmosphere in excavations

- Atmosphere tested before entry into low-lying or enclosed excavations
- Excavations in known contaminated ground assessed before work starts
- No ignition sources permitted where a flammable atmosphere is possible

9. Rollover of excavators or loaders on unstable or sloping ground

- Ground conditions assessed for load-bearing capacity and slope before machine access
- Machines operated within manufacturer-rated slope limits
- Batters and stockpiles kept clear of machine travel paths
- ROPS-fitted machines used with seatbelts worn at all times

10. Struck by plant during truck loading and spotting

- Exclusion zone maintained around loading trucks
- Spotter used for all truck positioning and loading movements
- Truck drivers remain in the cab or a designated safe area during loading

11. Manual handling of shoring, pipes and fittings

- Mechanical lifting or machine assistance used for heavy shoring components and pipe sections
- Team lifts used for awkward or heavy items
- Materials staged close to the point of use to limit carry distance

13. Undermining of adjacent structures, footpaths or services

- Excavation depth and proximity to adjacent structures assessed before digging
- Engineer consulted where excavation may undermine footings or structures
- Ground movement monitored near existing structures during excavation
- Temporary support installed where an undermining risk is identified

15. Traffic and public interface hazards adjacent to roadways

- Traffic management plan implemented for work adjacent to roadways
- Signage, barriers and delineation used to separate the public from the excavation
- Trained traffic controllers used where required by the traffic management plan

12. Water ingress and drowning risk in flooded excavations

- Dewatering pumps used to remove standing water before entry
- Excavation re-inspected for wall stability after dewatering
- No entry permitted into water-filled excavations

14. Overhead powerline contact with excavator boom or tipper truck

- Overhead clearance checked and no-go zones established before machine setup
- Tipper truck tray lowered before moving near overhead lines
- Spotter used when machines operate near powerlines

16. Noise exposure from excavators, compactors and machinery

- Hearing protection worn for all high-noise plant operation
- Task rotation used to limit individual exposure duration
- Machines maintained to manufacturer specification to limit noise output

17. Whole-body vibration from prolonged machine operation

- Seat suspension and machine maintenance checked regularly
- Operator hours on vibration-prone machines rotated between crew
- Breaks scheduled during extended machine operation

19. Heat stress and UV exposure working outdoors

- Hydration breaks scheduled during hot conditions
- Sun-protective clothing, hat and sunscreen used for outdoor work
- Shade provided during breaks
- Work rescheduled to cooler parts of the day where practical

18. Silica dust exposure from dry excavation, rock breaking or crushing

- Water suppression used during dry excavation, rock breaking or crushing
- P2 respirator worn where dust suppression is not sufficient
- Dust-generating tasks scheduled away from other workers where practical

20. Slips, trips and falls on uneven or spoil-covered ground

- Site access routes kept clear of spoil, materials and equipment
- Appropriate footwear worn for uneven ground conditions
- Excavated material stockpiled away from walkways and access points

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This cheatsheet is a starting point only — review and adapt controls for your actual site conditions before use; it is not a substitute for a competent person's own risk assessment.