


HAZARD / WORK ACTIVITY ASSESSED	Working in and with Excavations
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Hazard (something with the potential to cause harm)	Risk rating prior to control			Who may be harmed					Control Measures	Risk rating after control		
	Severity	Probability	Risk	Operator	Employee	Visitor	Public	Sub-cont		Severity	Probability	Risk
Digging of the excavation – collapse of sides	5	2	10	x	x				Before starting, make an assessment of the location of the area for excavation, the size of the necessary excavation, the condition of the ground and the weather conditions. Whether the ground is wet/dry, solid/loose etc will affect the likelihood of collapse. An assessment of the need for shuttering of the sides, or the battering down of sloped sides must be made in order to prevent collapse. The depth of the excavation does not decide the need for shuttering as the worker could be kneeling or lying down whilst working. Sufficient space within the excavation for easy working is required. During digging the spoil must be emptied as far from the excavation as is reasonably practicable to avoid it falling back in, or the weight causing collapse of the sides. A safe means of ladder access/egress is required at all times. If the excavation requires more than one day onsite then an assessment needs to be carried out at the start of each working day, conditions can change overnight so shuttering maybe required if not already put in place. Leaving excavations overnight will require shuttering if the assessment requires it, also sufficient safety boards must be placed over the open excavation and securely barrier taped, or rigid barrier off when leaving overnight.	5	1	5
Existing underground services - striking	4	2	8	x					Service providers drawings to be obtained where possible and CAT scanning of area to be undertaken prior to and during excavation at all times. Regular sweeps of the ground in open excavations by a service detector are to be made at maximum 300mm depth intervals. Consultation with homeowner to establish whereabouts of any on-site services. Where services are discovered, relocate excavations away from the area. If relocation is not an option, isolate the service prior to excavation and carefully hand dig in the area until it is exposed.	4	1	4
Plant and materials – falling into excavations	3	3	9	x	x				Plant and materials to be stored away from the edges of the excavation and the immediate workspace.	3	1	3

Working in excavations – flooding of	2	2	4	x	x				Any services exposed within the excavation must be propped to avoid collapse or stretching. Suitable pumps must be on hand with deep excavation and in areas prone to flooding. Ladders to be provided for safe access/egress.	2	1	2
Unauthorised persons – falling into excavations	3	3	9	x	x	x	x	x	Substantial barriers to be erected around work area to prevent access from unauthorised persons. No equipment to be left at the edge of the excavation	3	1	3
Confined space – presence of hazardous gasses	4	2	8	x	x				Anything considered to be a confined space must be checked by a suitably trained operative with a gas detector and an escape kit provided.	4	1	4
Contaminated spoil – coming into contact with	3	3	9	x	x				All necessary PPE must be worn i.e. safety boots, overalls and gloves. Any contaminated waste must be disposed of correctly.	2	1	2
Hand digging – injury to musculoskeletal system	3	3	9	x	x			x	Manual handling (RM30) control measures to be implemented, good stance when digging downwards, knees bent and back straight when possible. Correct kinetic lifting technique. Position surface protection in suitable area for placing excavated soil making sure not to overstretch or twist, same applies when using scissor diggers, a good stance and posture over hole to be dug using gloves for good grip, do not over extend. Only use equipment that has been provided for the task.	3	1	3

### SAFETY METHOD STATEMENT

1. Sufficient numbers of trained operatives and competent supervision must be available before work commences.
2. Suitable and sufficient plant must be available for trench support before work commences.
3. Suitable monitoring equipment and personnel trained in its use will be required where known exposure to toxic substances or lack of oxygen may occur.
4. Consult with homeowner to establish the position of any on-site services.
5. Always attempt to reposition any trial holes/excavations that are in the area of live services.
6. Location of existing services must be completed before work commences, also information on ground conditions.
7. Cable location equipment and local authority drawings to be utilised to trace buried services. Regular sweeps of the ground in open excavations by a service detector are to be made at maximum 300mm depth intervals.
8. Sides of excavation must be supported where there is a risk of collapse.
9. Where flooding risk occurs, cofferdams / cassions to be installed with pumps of suitable capacity.
10. Substantial barriers to be erected around excavations.
11. Where poor ventilation is identified the atmosphere will be continually monitored.
12. Stop blocks to be used to prevent vehicle entry.
13. Ladders to be provided for safe access and egress.
14. Suitable signs and barriers to be provided to warn of the work being undertaken.
15. Ensure safe system of work, taking account of prevailing conditions including weather, traffic and existing structures.
16. Inspect supported excavations before work commences each day and complete the necessary register.
17. Ensure personnel selected are fit, capable, experienced and trained in correct manual handling and kinetic lifting techniques.
18. COSHH assessments are to be made available for substances likely to be found or produced during the work.
19. Individuals who have developed any health problems, e.g. back problems or other muscular disorders, should contact the office immediately so that manual handling activities may be refrained from until a full occupational health assessment can be made by a suitable qualified person.

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Severity	Probability	Risk Rating		
1 No Injury, property damage	1 Very Unlikely	Severity X Probability = 1 to 5	Low	Y – acceptable risk, work can start
2 Minor Injury	2 Unlikely	Severity X Probability = 6 to 14	Med	Y or N – may need further consideration
3 +3 Day Absence	3 Likely			
4 Major Injury	4 Very Likely	Severity X Probability = 15 to 25	High	N – Unacceptable risk Do not start work
5 Death	5 Virtually Certain			