SAFE WORK METHOD STATEMENT	**SWMS Excavation Work Deeper than 1.5 Metres**		
Reference documents	Work Health & Safety Act 2011 and Regulation's 2017, Codes of Practice; How to Manage Work Health Safety Risks, Managing the Risk of Chemicals in the Workplace, Hazardous Manual Tasks, Managing the Work Environment and Facilities, First Aid in the Workplace, Confined Spaces, Construction Work, Demolition Work, Excavation Work, How to Manage and Control Asbestos, Managing Noise Preventing Hearing Loss.		
SWI:			
Training and Competencies	General Construction Induction Card (white card)		
Safety Data Sheets	Caltex 2 stroke fuel mix, Castrol hydraulic fluid		
Personal Protective Equipment	Hearing protection, Face shield/eye protection, Safety footwear, High visibility long sleeve shirt and trousers, Sunscreen, Protective gloves, Hard hat, Respiratory protective equipment, Wet weather clothing.		
Plant and Equipment			
Inspection and Testing	Pre-start checks on all plant and equipment, inspection as per manufacturer's requirements and SCC Inspection and Testing regime.		
Hazardous Chemicals and Dangerous Goods			
High Risk Work *Indicate if any of the HIGH-risk activities are performed by workers*	☒ Where there is a risk of a person falling more than two metres.	☒ On in or adjacent to roadways, railways, shipping lanes or other traffic corridor.	☐ In, over or adjacent to water or other liquids where there is a risk of drowning.
	☒ At workplaces where there is any movement of powered mobile plant.	☐ Involving the use of explosives.	☐ In an area where there are artificial extremes of temperature.
	☒ On or near energised electrical installations or services.	☒ Involving a trench or shaft if the excavated depth is more than 1·5 metres.	☐ On or near pressurised gas distribution mains or piping.
	☐ Involves structural alterations or repairs that require temporary support to prevent collapse.	☒ Involving a confined space.	☐ On or near chemical, fuel, or refrigerant lines.
	☐ Involving tilt-up or precast concrete.	☐ On telecommunications towers.	☐ Involving diving.
	☒ Involving removal or likely disturbance of asbestos	☐ In an area that may have a contaminated or flammable atmosphere.	☒ Involves demolition of an element of a structure that is load bearing or otherwise related to the structural integrity of the structure.
	☐ Involving a tunnel.		
SWMS Prepared by:	**Name and signature:**		**Date:**
Authorised by:	**Name and signature:**		**Date:**

Persons Responsible for Ensuring Compliance with SWMS:			
Methods used to Ensure Compliance with SWMS:			
Persons Responsible for Reviewing SWMS Control Measures:			
When should Risk Control Measures be reviewed:			
Review Date:		**Reviewer's Signature**	

* ***SWMS are to be reviewed as per the Document Control Procedure or when there has been a change to the Task / Process or Legislation.***

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
Planning	Unfamiliar Worksite	Personal Injury: - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	**Obtain information about:** - Type of soil (moisture content, hardpan, clay, silt, loam, sand, layered, backfill, etc) - Rock outcrops - Water sources, creeks, wetlands etc - Water table - Faults/ bedding planes - Surface drainage - Slope/ lean of land - Underground assets including pipelines - Underground tanks (fuel or chemical) - Possible contamination - Previous excavations in area - Proximity to buildings **Seek geotechnical analysis** as required. Deep excavations **may require a Geo-technical specialist assessment**.	Supervisor and Workers	M

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
				Seek qualified persons advice (engineer) if: - Trench located adjacent to load bearing structures - Trench located adjacent to water body - Variable ground conditions - Complex de-watering required - Any trench 1.5m or more that persons will enter		
Planning - continued	Unfamiliar Worksite	Personal Injury: - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	Ensure equipment suitable for task – (know the capabilities/limitations of particular plant, example: WWL and gradient of acceptable slopes). **Inspect intended work area**. Ensure: - Ground surface is suitable for equipment - No steep slopes, unprotected drop offs, - dial before you dig, up-to-date site plans and/or locating equipment) - Sufficient room to operate equipment - Sufficient space and location for spoil pile - Clear of overhead electric lines Provide: - Sufficient lighting to help eliminate glare and light transition risks. - Suitable amenities - Communication equipment - First Aid supplies and trained first aiders	Supervisor Competent operator	M

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
				Site Specific Risk Assessment Include: - Weather conditions (consider wet conditions) - Ground condition (rocks, uneven, muddy/slippery etc) - No go zones (barricade steep slopes, etc) - Pedestrian exclusion zones (barricades) - Emergency and rescue plans - No working alone - Atmospheric testing where required		
Planning - continued	Unfamiliar Worksite	- Personal Injury - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	All personnel to attend a site-specific induction if necessary (include location of amenities, first aid facilities, emergency plans and evacuation points, incident reporting, communication, contact persons etc). Ensure all persons entering a construction site have a Construction Induction Card. Develop or obtain written Traffic Management Plan (TMP). Taking in consideration: - Speed of traffic / traffic volume - Clearance between plant and workers - Layout of worksite - Access/egress to worksite - Visibility / Weather - Location of parking facilities and break areas Select suitable risk controls, example: - Speed restrictions - Traffic controllers - High visibility clothing - Isolating vehicles/plant from workers	Supervisor Competent operator	M

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
				- Fencing, barriers, barricades, temporary warning, or control signs - Clear communication system - Minimise amount of plant working at one time - Plant and Vehicles to enter/exit site in a forward direction where possible - Audible reversing alarms, sensors, reversing cameras, flashing lights – Spotters or observers. - Ensure visitors and contractors who enter the site receive appropriate site induction		
Planning - continued	Unfamiliar Worksite	- Personal Injury - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	Overhead electric lines (including high and low voltage distribution conductors, single wire earth return (SWER), service cables to premises, communications cables and electrical transformers mounted lower than cables). Identify: • Maximum range of equipment and how close equipment or load can come to asset (known as design envelope) • Clearance distances for type of asset (***) • Type of asset/cabling (if in doubt contact electrical supplier) • Voltage level • Height of conductor at lowest point • Minimum distance between wires and ground • Degree of sag and sway	Supervisor Competent operator	M

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
				*** Minimum Clearance zones: High voltage electrical conductors = 2m Un-insulated low voltage conductors = 1m Insulated low voltage (between 50V and 1,000 V) = 0.6m Communications cabling = 0.3m In general: 3m above, either side and below power lines is No Go Zone. Between 3 - 6.4m of power lines a Spotter is required. Further than 6.4m of power lines is open area No work to be conducted within 10m radius of SWER transformer		

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
Planning - continued	Unfamiliar Worksite	- Personal Injury - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	No work to be conducted within Minimum Clearance Zones without authorisation Work outside Minimum Clearance Zone, but still in No Go Zones, site-specific SWMS to be developed and Safety Observer to be in place. <u>Note:</u> Safety Observer is not required where work is 6.4m from power line, but design envelope reaches into No Go Zone if: - Work is designed so no part of machinery or load enters within 6.4m - Documented P18.F01 - Risk Assessment Checklist (RAC) is developed and responsible persons assigned to oversee the (RAC) Implement suitable controls. Examples: - Relocation of cables - Disconnection of power supply (evidence must be obtained from power supplier) - Use equipment with smaller design envelope Temporary physical height barriers to limit loads Longitudinal fencing or height markers to indicate extent of allowed movement - Signage - Use of Safety Observer - establish effective communication system with operator. <u>Note:</u> Safety Observer must: - be a person certified in these work practices.	Supervisor Competent operator	L

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
Planning - continued				- be positioned in a suitable location to observe the approach of the crane, plant, or load to the overhead power lines. - be able to warn the operator in sufficient time to ensure all clearances as prescribed are maintained. - be able to warn the operator in sufficient time to ensure all clearances as prescribed are maintained. - not be required to observe more than one crane or item of plant at any period of observance. - hold a current Resuscitation (EAR, CPR) Accreditation. - have certification in Low Voltage Escape, Release and Rescue. - inspect all Escape, Release and Rescue Equipment prior to commencing work. - withdraw any defective release and rescue item identified from service. - not carry out any other duty during the period of observance - continue to monitor the work activity being carried out - have the authority to suspend the work at any time		

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
Preparation	Unfamiliar Worksite	- Personal Injury - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	Test soil before digging. Example: bore test or excavate sample, observe soil type (cohesive, weak, or granular). Select trench support system as required. Assess: - Size of trench (depth, and height of face) - Type of soil - Surrounding space and any obstructions - Previous disturbed ground, excavations and / backfill - Number of trenches required in close proximity - Persons required to enter - Exposure to loads: Plant, equipment, spoil pile, dams, or buildings in close proximity - Ground vibration: Traffic, machinery, construction work in close proximity, use of explosives etc - Bends in excavation Select appropriate system. Examples: - Shoring. (Must be designed for the purpose and erected as per manufacturer's instructions) - Trench boxes / shields - Underpinning - Bracing - Propping - Shoring, underpinning, or bracing for nearby structures or underground installations	Supervisor Competent operator	M

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
Preparation - continued	Unfamiliar Worksite	- Personal Injury - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	Provide barricades to prevent public access. barricades to warn of trench dangers. Provide fall protection for persons working near trench if fall risk is 2m or more. Examples: - Guard rails with top-rail, mid-rail and toe-board or mesh panel - Safety harness / lanyard (Note: Anchor points must be assessed by qualified persons as safe for use) - Restricted access to website Provide barricades to prevent plant from falling in. Examples: - Visual barrier - Use of spoil pile graded away from excavation - Ensure plant and equipment maintain 600mm clearance from trench edge. Design trench to avoid need to cross over. If cross over needed, ensure walkways, or bridges meet AS1657 and have suitable toe-boards. Ladders. Ensure: - Foot of ladder is angled at a ratio 1:4 - Not placed near junctions, or other obstructions Extend at least 900mm above surface of excavation - Ladder commercial / Industrial - Secured adequately	Supervisor Competent operator	M

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
Preparation - continued	Unfamiliar Worksite	- Personal Injury - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	Spoil pile: - Not stored within 1m from trench. - Not closer than 1/3 of the trench depth supported trench - If not possible – use close sheeting and increase strength of support systems. Use toe-board at least 300mm at foot of spoil pile - No more than 600mm from unsupported trench at a 45-degree angle in a line from bottom of excavation - If sloped land, spoil pile on downhill side of trench - Opposite side to any previous excavations - Place so that any surface water drains away from trench Ensure adequate de-watering system provided where required. Example: Sludge pumps, or pumps/well points connected to drainage pipes. Determine whether trench will be a confined space. If so, do not enter trench without a dedicated Confined Space SWMS and Confined Space Entry Permit. Ensure atmosphere in trench is monitored for contaminants as required. Ensure trench large enough for persons required to work and for tools used (including any swing room – such as picks).	Supervisor Competent operator	M

<table>
<tr><th>Job Step</th><th>Hazard</th><th>Risk</th><th>Initial Risk Rating
E,H,M,L</th><th>Control Measures
Controls have been identified using the hierarchy of controls</th><th>Responsibility
Who</th><th>Residual Risk Rating
E,H,M,L</th></tr>
<tr><td>Preparation - continued</td><td>Unfamiliar Worksite</td><td>- Personal Injury
- Crushing
- Exposure to hazardous atmosphere
- Entrapment / Suffocation
- Falls
- Hit by falling object
- Hit by moving vehicle
- Electric shock</td><td>H</td><td>Do not exceed safe slopes for battering and benching. See Pages 17-19 for further information

Battering: suitable for shallow excavation, open ground with minimal obstructions.

Benching: Bottom vertical height should not exceed 1.2m for the bench. Subsequent benches should be 1.2m (with 1.5m for only very cohesive soils).

Note: Angle of incline varies with soil type, height of face, moisture content and loads acting on the face.

Examples:
<table>
<tr><th>Soil</th><th>Horizontal / Depth ratio</th><th>Slope Angle</th></tr>
<tr><td>Granular</td><td>1.5:1</td><td>34</td></tr>
<tr><td>Weak</td><td>1:1</td><td>45</td></tr>
<tr><td>Cohesive</td><td>0.75:1</td><td>53</td></tr>
</table>
If trench depth exceeds 3m, stabilise face with horizontal benching.

Where persons are entering trench 1.5m or more, ensure;
- Battered back
- Properly shovelled
- Fully protected within trench shield
- Trench fully supported
- Emergency plans in place
- Rescue equipment on site before persons enter</td><td>Supervisor
Competent operator</td><td>M</td></tr>
</table>

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
Pre-Operational Inspection	Equipment Failure	- Personal Injury - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	Inspect Plant and Equipment. Perform Daily Prestart Checklist prior to operating the equipment. **REPORT ANY SERIOUS SAFETY ISSUES IMMEDIATELY and do not operate the equipment.** If damage or faults detected, do not use. Follow tagout/lock-out procedures and report to supervisor immediately.	Supervisor Competent operator	M

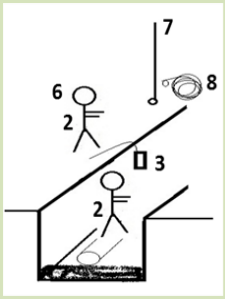
Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
Pre-Operational Inspection – continued	Equipment Failure	- Personal Injury - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	Ensure all trench support equipment onsite is fit for purpose. Competent person to inspect open trench prior to start of work, after rainstorm, changing spoil pile conditions, and as needed throughout shift. Check: - Condition of soil surrounding trench (drying out or water saturation) - State of shoring, battering and trench walls - Earth fretting - Slipping - Fracture lines in trench - Slumping in ground surface near trench - Ground swelling - Water running from bottom of trench or between sheet pilings - Support timbers bowing or creaking - Changes in adjacent structures If any deficiencies noted, cease work, and evacuate trench. - Inspect all PPE prior to work. Ensure: - - Respiratory protection clean, serviceable - Safety helmets undamaged and worn	Supervisor Competent operator	M

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
Operational	Onsite	- Personal Injury - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	Trench Shields: - To be fitted from outside the trench - Persons to work only in sections where shields are in place. - When trench shields are being repositioned, all workers must exit the trench. - A spotter will be used during the repositioning of shields - Monitor the trench shield's performance and stability of the trench walls regularly throughout shift <u>Do not:</u> - Lift loads over persons working trench - Store materials (pipes etc) close to trench edge Climb up or down components of shoring system - Leave plant idling unnecessarily near excavation - Remove any part of trench support system - Work alone After hours: - Fill excavation where possible - Securely cover - Provide solid barricades (1mtr) and signage On completion: - Fill excavation (use stop-blocks for filling plant) - Remove excess spoil and leave site tidy.	Supervisor Competent operator	M

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures *Controls have been identified using the hierarchy of controls*	Responsibility *Who*	Residual Risk Rating E,H,M,L
Operational - continued	Onsite	- Personal Injury - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	H	• Maintain all equipment (such as plant, and hydraulic shoring equipment) as per manufactures instructions. • Ensure all maintenance is performed by competent persons. • Ensure pressure is relieved before maintenance • Keep logbook of service and maintenance history as required. • Do not rely on hydraulic system to hold bucket or any part of equipment in raised position during maintenance. Always use suitable SWL blocks/jacks.	Supervisor Competent operator	L
Emergency Procedures	Onsite	- Personal Injury - Crushing - Exposure to hazardous atmosphere - Entrapment / Suffocation - Falls - Hit by falling object - Hit by moving vehicle - Electric shock	M	Develop and implement an emergency response plan for the site. Include: - Assembly points if applicable - Communication - Responsible persons - Emergency contacts (including nearest medical facility) - First aid equipment - Develop site-specific rescue procedures/SWMS. - Ensure all rescue equipment onsite before persons enter trench. - Ensure all rescue procedures are rehearsed and appropriate for location/trench.	Supervisor Competent operator	L

`COMMON` PROCEDURAL STEPS FOR ALL CONFINED SPACES RESCUE PLANS

1. Rescue Plan inclusive comunication system to be discussed at toolbox meeting and permit /risk assessment made available for viewing by workers.
2. Evacuation assembly area established.
3. Rescue Plan initiated by the Standby Person,contact details in Section 9 of this permit and **Call 000 or 112 (mobile)** if required
4. **After rescue** - Remove harness, if required render first aid, Report Incident to Supervisor and Inform WHS Unit.

RESCUE PLANS	**RESCUE PLAN Site specific NO. 1 continue (EXCAVATION)**	**RESCUE EQUIPMENT *(All Rescue plans)***
Rescue Plan No.1  **EXCAVATION**	***Above common rescue procedural steps plus;*** **5a**. Use rescue pole to click Fall Arrester to harness Others …… **Name person rendering First Aid:** …… **Rescue Plan Approved by:** **(Authorised Person) Initials:** ……	**Rescue Plan; No 1** 1. Anchorage /Tripod or Mounted Crane EAP & RPD [ ] 2. Safety Harness [ ] 3. Gas Detector [ ] 4. First Aid Kit [ ] 5. Mobile Phone (on site). [ ] 6.Two Way Radios (on site). [ ] **6 a.** Fire Extinguisher [ ] **6 b**. Respiratory on standby [ ] **6.c**. SCBA on Standby [ ] **6 d.** Extra Personnel [ ] **7. Rescue Pole (on site)** [ ] **8.a Tag Line** [ ]
SITE SPECIFIC CONFINED SPACE – RESCUE PLAN - No. 5 **Note: ADD additional rescue requirement in space provided.**	**RESCUE PLAN NO.5 CS - Site Specific** ***Above common rescue procedural steps plus;*** [ ] Use rescue pole to click to Tag line or similar device [ ] Remove harness [ ] Remove worker from trench [ ] Set up tripod [ ] Use SCBA to assist **Other requirements** …… **Name person rendering First Aid:** …… **Rescue Plan Approved by:** **(Authorised Person) Initials**: ……	**Rescue Plan; No 5** *Equipment ticked in R -Plan No.1 plus others need prescribed below* ***Other;*** …… …… …… …… …… ……

Trench Stability
Where the trench is over 1.5 m in depth and space is limited, shoring must be used to prevent trench wall collapse. If there is sufficient land available, a simpler method of ensuring trench safety is to batter or bench the trench to prevent trench wall collapse (see Fig 3.1).

Shoring/Shielding — Shoring and shielding requires the placement of metal sheeting or timber along the walls of the trench to prevent collapse. The type of sheeting that is used, and the method of fixing it in place, will depend on the soil conditions.

The traditional method of shoring was using timber struts and stays, but this has now progressed to metal shields and shoring systems. In this guideline we will cover both systems. Timber shoring **MUST** be carried out under the supervision of a trained and experienced timber shoring installer.

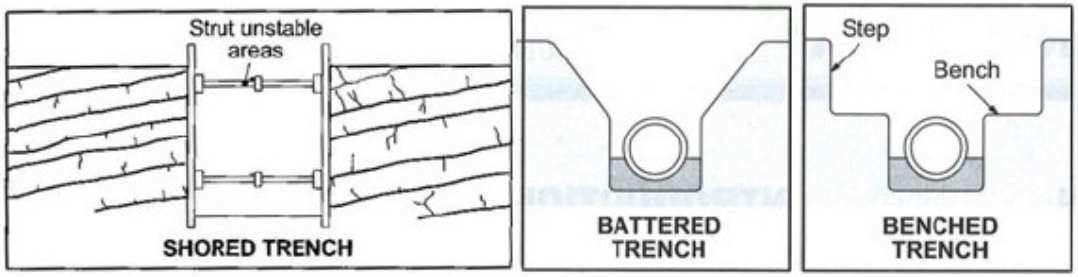


Fig 3.1 Difference between Shoring, Battering and Benching

Battering — Battering is the widening of the trench above the embedment zone to reduce the possibility of trench collapse by using a sloping batter (usually 45°) to widen and stabilise the trench.

Benching — Benching is the use of horizontal excavated steps to stabilise the excavation.

Benching and battering can be used in conjunction with shoring to provide additional depth of safe shoring or shielding.

TRENCH WIDTH:

Care must be taken to ensure that the trench is dug to the correct width, as well as the correct depth. Where the width of the trench is not specified it should be as narrow as practicable, but adequate to allow space for working and for compaction. The minimum trench width applies only for the embedment zone, once above that level the trench can be benched or battered as required. The requirements for the relevant shoring must be added to this width.

Common sized backhoe or excavator buckets widths are 300, 450, 600, 750, 900, 1100 and 1200 mm. The bucket used should be the next size larger than the specified minimum width.

Where worker access is required, the minimum width should be 600 mm.

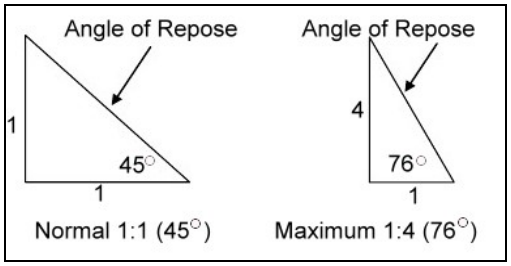
There is also a maximum trench width which should not be exceeded as it can result in insufficient side support for the pipe. If you need to use an excessively oversize bucket, it's suitability should be confirmed with a geo-technical specialist.

The minimum trench width shown above does not include any allowance for shielding or shoring which will need to be allowed for when selecting the appropriate bucket width.

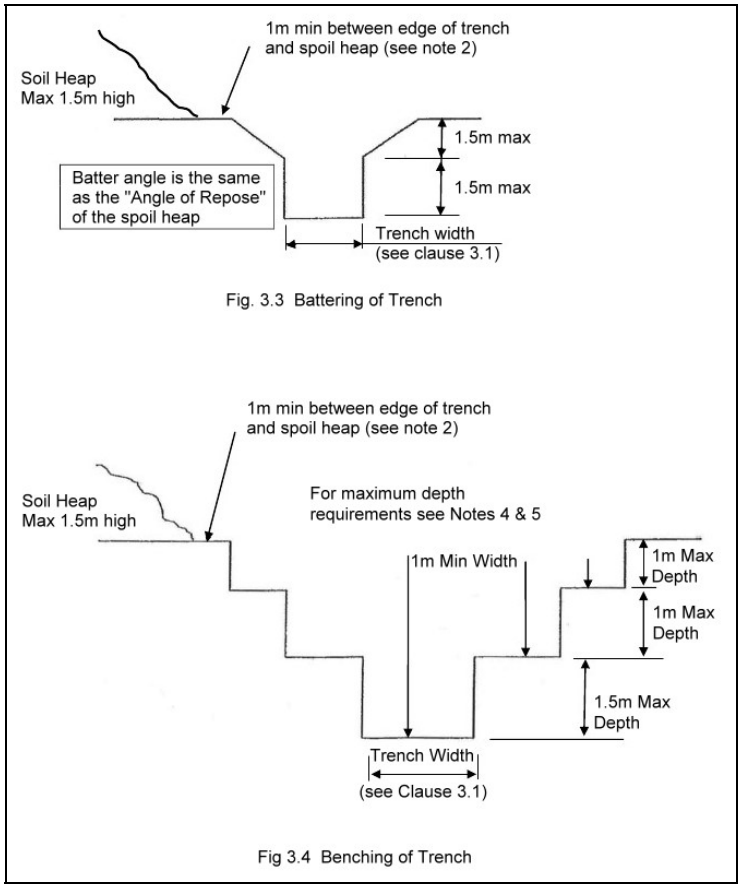
BATTERING AND BENCHING OF TRENCHES

Battering and Benching (see Figs 3.3 and 3.4) is based on the principle of removing enough soil such that the soil will not fail (battering) or in the event of a failure the soil will not fall into the actual trench (benching).

The size and shape of the excavation is based on the "Angle of Repose" (see Fig 3.2) which is normally taken as 1:1 (45°), but in some instances, depending on the stability of the soil/rock it can be a maximum of 1 horizontal: 4 vertical (76°)



Comment
A simple method of determining the Angle of Repose is to check the trench spoil heap and determine the maximum slope which can be maintained without slippage.



Notes:

1. Providing sufficient open ground is available, benching can be used to meet any depth requirement
2. Where sufficient ground is available, 1.0m should be maintained between the bottom of the spoil heap and edge of trench, battering or benching.
3. Trenches up to 3m deep, a 1m minimum width bench can be used. Trenches 4m to 5m deep, special requirements exist (seek advice)
4. Over 5m deep, geotechnical approval is required.

Note: Trenching Site Fencing guidelines –

- **Hard Fencing** complete with no gaps or missing panels and joins any existing fencing or structures (Shrubs or trees are not acceptable fencing). *Used to prevent entry during work and after hours where intruder injury or fatality may result.*
- **Hard Fencing panels** are securely clamped together, will not collapse from wind, cannot be crawled underneath and have nothing stacked against for climbing on or over.
- **Entrance gate** has a chain and lock fitted. The chain should not be so long that the gates can be opened enough to allow someone or a child to slip through. *Used to prevent entry during work and after hours where intruder injury or fatality may result.*
- **Alternate Fencing** – Parawebbing/Barrier Mesh must be secured to posts/steel pickets at intervals to prevent sagging and access to site/restricted area. Steel pickets must have protective caps on top. *Often used around restoration work, smaller jobs, pedestrian control and where there is minimal possibility of intruder injury.*

LIKELIHOOD How likely is it to happen? ↓	**E=EXTREME H=HIGH M=MEDIUM L=LOW** ← CONSEQUENCES – How severely could it affect health and safety? →				
	CATASTROPHIC Kill or cause Permanent Disability	**MAJOR** Serious Illness or Injury	**MODERATE** Medical Attention, Time off Work	**MINOR** First Aid Required	**INSIGNIFICANT** No Injuries
ALMOST CERTAIN Is expected to occur	**E**	**E**	**H**	**H**	**M**
LIKELY Will probably occur	**E**	**H**	**H**	**M**	**M**
POSSIBLE Might occur	**H**	**H**	**H**	**M**	**L**
UNLIKELY Could occur	**H**	**M**	**M**	**L**	**L**
RARE May occur only in exceptional circumstances	**H**	**M**	**M**	**L**	**L**

Risk Level	Required Action
Extreme	**Act immediately**: The proposed task or process activity must not proceed. Steps must be taken to lower the risk level to as low as reasonably practicable using the hierarchy of controls.
High	**Act today**: The proposed activity can only proceed, provided that: The risk level has been reduced to as low as reasonably practicable using the hierarchy of controls. The risk controls must include those identified in legislation, Australian Standards, Codes of Practice etc. and The document has been reviewed and approved by the supervisor and A Safe Working Procedure or Safe Work Method has been prepared and the supervisor must review and document the effectiveness of the implemented risk controls.
Medium	**Act this week**: The proposed task or process can proceed, provided that (i) The risk level has been reduced to as low as reasonably practicable using the hierarchy of controls and the document has been reviewed and approved by the supervisor and A Safe Working Procedure or Safe Work Method has been prepared.
Low	**Act this month**: Managed by local documented routine procedures which must include application of the hierarchy of controls.

Acknowledgement register

All workers are to sign this register to indicate they have read and understood this document prior to commencing work.

Name	Signature	Date	Name	Signature	Date