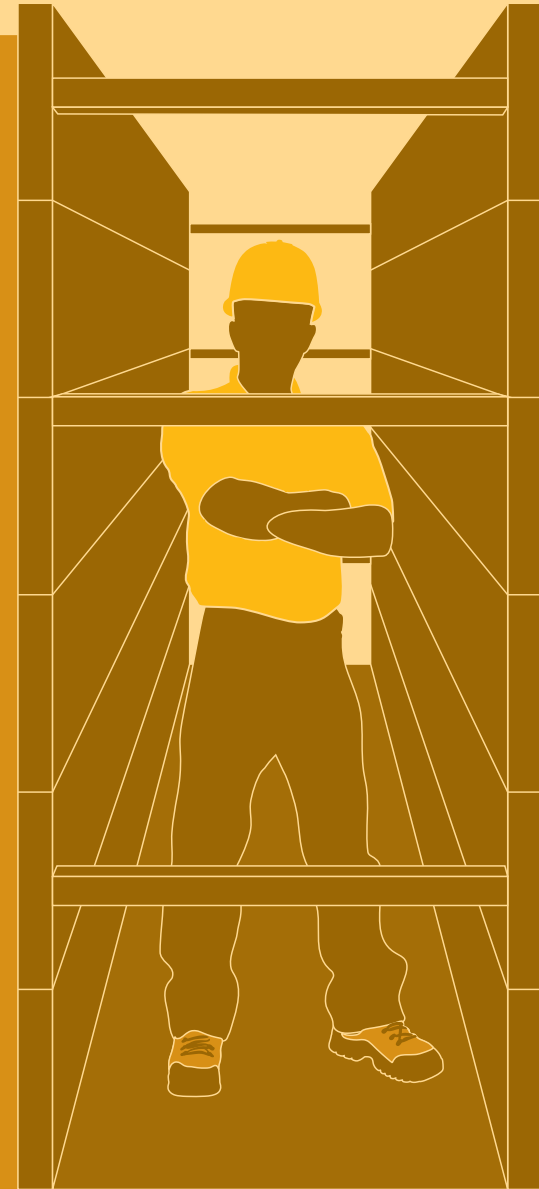


Trenching Safety

Things to know



Are you safeguarding your employees and yourself?

Trenches can pose risks to workers. So if you're in charge of a worksite, make sure you know the risks, use the controls or risk jail. For more information, go to:

worksafe.vic.gov.au/trenching

Trenching Safety:

Things to know

Control of risk

Engulfment controls

The biggest misconception in trenching work is that we do not need risk controls until the trench is 1.5M deep. If there is a risk of engulfment, risk controls should be in place even when the trench is less than 1.5m in depth

Engulfment can be caused by multiple factors, including: soil type, effect of heat, cold or rain conditions and the length of time the trench wall is exposed to the environment.

If an employee is entering a trench and there is a risk of engulfment then the following controls should be implemented:

- Battering
- Benching
- Positively support the trench by way of shoring or other comparable means
- Trench shields

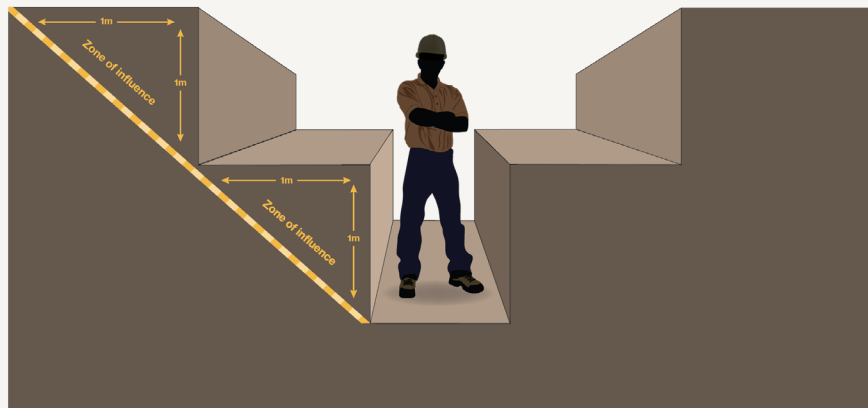
Remember:

These controls, or a combination of them, need to be implemented regardless of the depth of the trench.

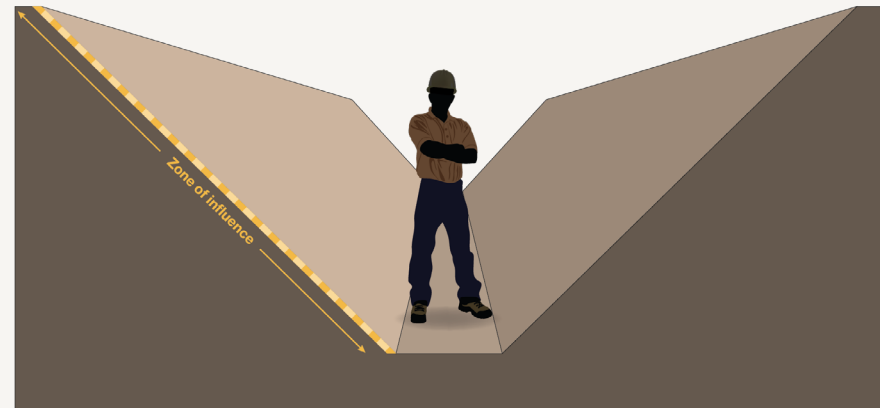
Trenching Safety:

Things to know

Benching



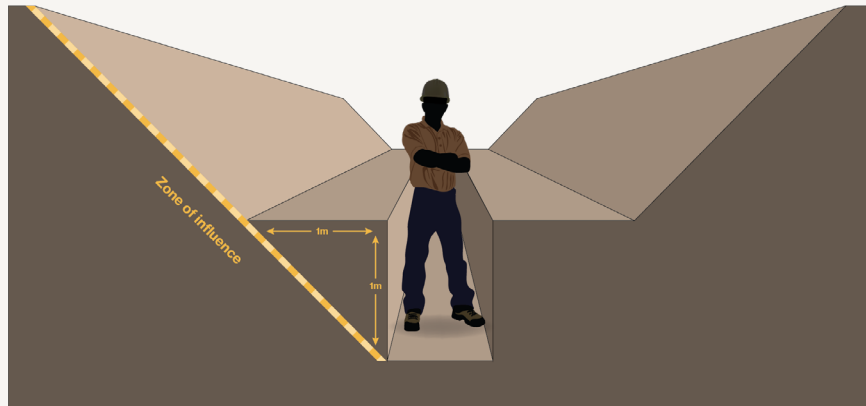
Battering



Trenching Safety:

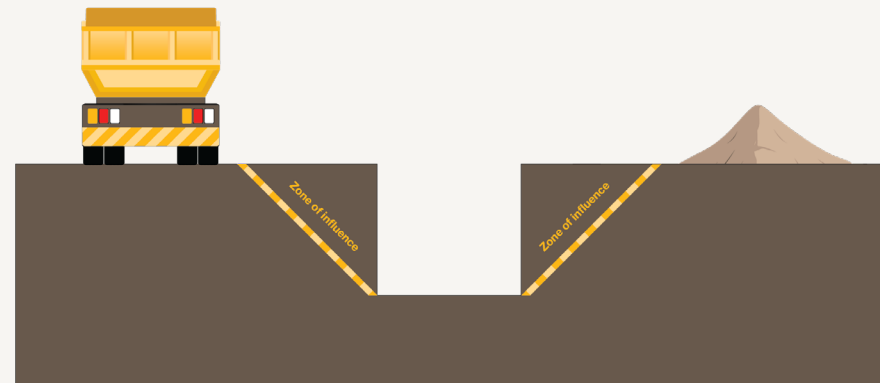
Things to know

Combination Benching Battering



Zone of Influence

The zone of influence is the area around a trench in which the risk of ground collapse may increase if plant or material is placed within that zone.



Trenching Safety:

Things to know

Consideration of ground conditions

The main consideration when choosing controls should be soil conditions. Ground encountered in excavations can generally be categorised as follows:

- Rock
- Hard, compact soil
- Dry soil liable to crack or crumble
- Loose or running material

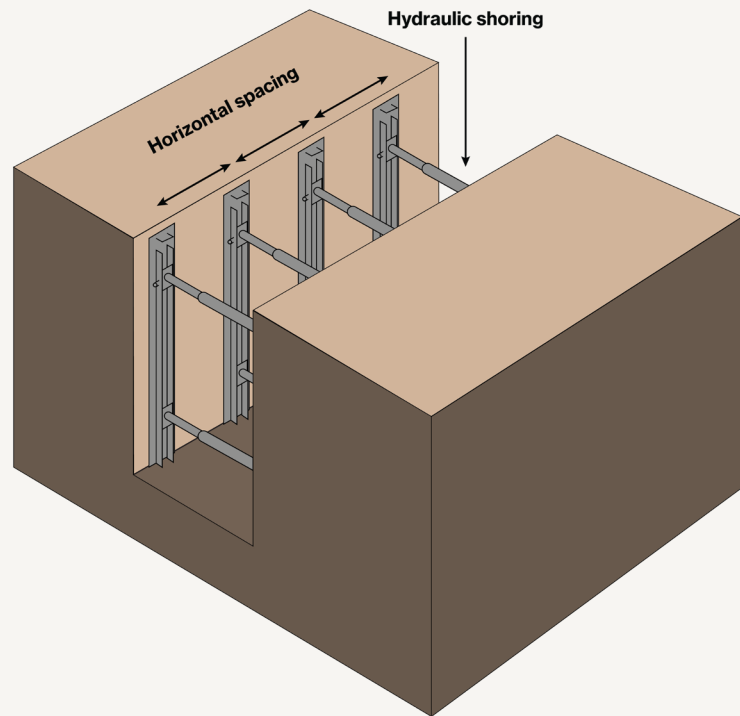
Hard compact soil is the type that causes misconceptions because the face 'looks good' and this often leads to risks being taken. With loose or running material, the need for safety precautions is obvious from the start.

Trenching Safety:

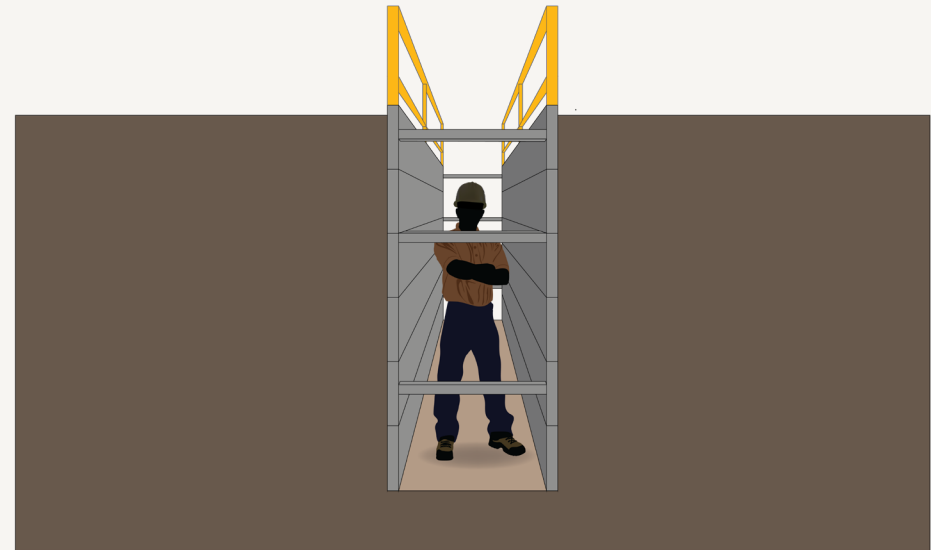
Things to know

Shoring

The horizontal spacing may vary depending on soil conditions.



Trench shields



Trenching Safety:

Things to know

High Risk Construction Work

A SWMS is required to be developed for all high risk construction activities prior to the work commencing. High risk construction work associated with trenching work may include but not be limited to the following tasks:

- **A trench where the excavated depth is greater than 1.5 metres**
- A risk of a person falling more than 2 metres
- A workplace where there is movement of a powered mobile plant
- A workplace that is on or adjacent to roadways or railways used by road or rail traffic
- The removal or likely disturbance of asbestos (contaminated soil)

When to notify WorkSafe

WorkSafe must be notified of work on the following types of excavations:

- a shaft (two metres or deeper) or,
- **a trench (1.5 metres or deeper) or,**
- a tunnel

that a person can enter and where there will be a risk to the health and safety of any person from the excavation.

The written notification must be submitted 3 days prior and must include certain information about the excavation work.

Exemptions:

Notification is not required if the excavation is made as part of building work for which a building permit has been issued and is in force under the Building Act 1993.

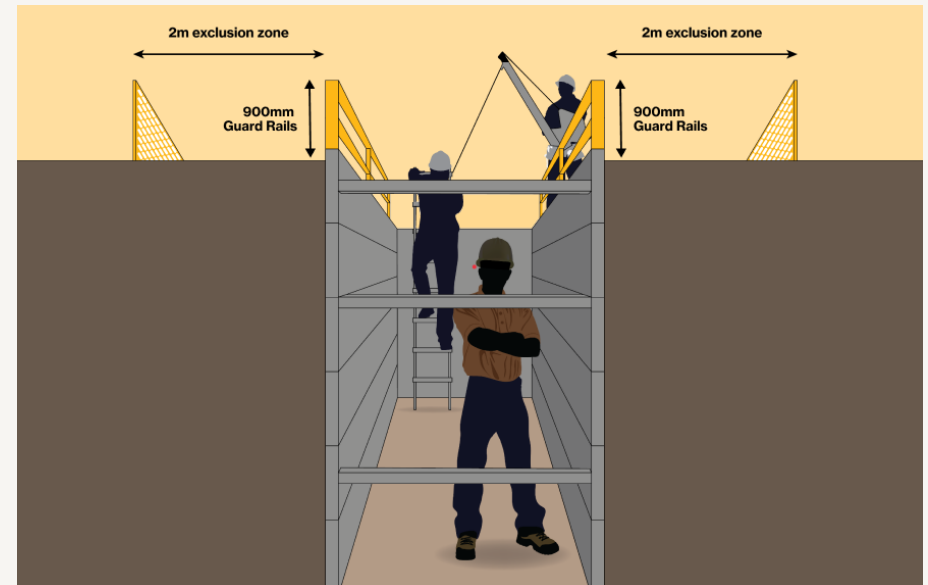
Trenching Safety:

Things to know

Protection around a trench

Fall protection controls may include but are not be limited to:

- Extending trench shield sides out of the ground at least 900mm
- Fitting trench shield systems with an attachable guardrail system. Where possible, this should be fitted before installing the trench shields
- Having fall protection during installation of trench shields
- Keeping fall protection during access/egress
- Exclusion zones of at least 2 metres were possible around the excavation works that is physically defined.



Trenching Safety:

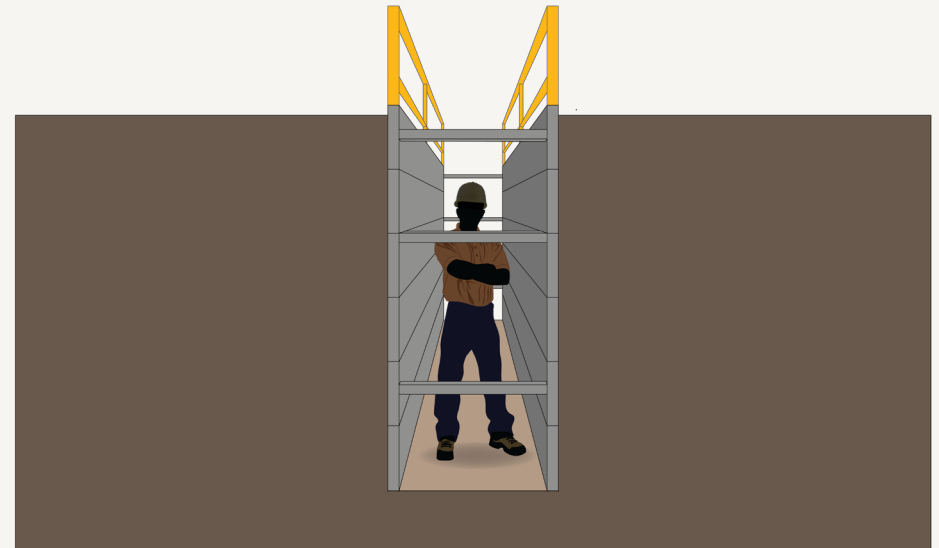
Things to know

Do trench shields prevent collapse?

Trench shields are used during trenching works to protect workers from being engulfed by ground collapse. Trench shields however, do not prevent ground collapse but provide a protected area for the worker to undertake their task.

It is imperative that **any worker engaged in trenching work where trench shields are used as protection remains within the protected area of the shields at all times**. Workers engaged in trenching works often become engulfed when they move outside of the shield protection even for a short period of time.

Trench shields need to be designed and constructed to withstand impact from ground collapse or the earth pressures if the ground becomes unstable. The trench shield also needs to be firmly wedged in to prevent it from moving if struck by collapsing ground as this may pose a risk to workers within.



Trenching Safety:

Things to know

Emergency Procedures

Employers should not assume that local emergency services have the capacity or equipment to carry out on-site emergency medical or rescue procedures in the event of a trench collapse.

Employers should consult with the local emergency services prior to commencing works. **A call to 000 could form part of the emergency procedure but should not be relied on in an emergency situation during excavation work.**

Employers are now required to develop Emergency Procedures if there is a risk of a person becoming engulfed by soil or other material when construction work is being performed.

Factors that affect the ability of emergency service to assist include:

- Poor vehicle access (for example, rough or muddy terrain)
- Poor visibility, fog or snow
- Phone coverage
- Distance from emergency vehicles, can affect timing and capability of local emergency services to assist in an emergency situation

Be aware, although emergency rescue needs to happen quickly, the risk of further ground collapse, which can put both trapped people and their rescuers at risk, needs to be controlled.

