

Excavation:

What you need to know as a busy builder

Getting in too deep?

Follow these essential health and safety tips to protect people working on your construction site.

The tips summarise actions for straightforward excavations – eg pipe and cable laying, manhole construction, shallow foundations, small retaining walls etc. If your excavation is more complicated, speak to an expert, such as a structural engineer.

- Prevent collapse – shore, step or batter back. Don't assume ground will stand unsupported.
- Support the excavation as you go along.
- Prevent people and materials falling in – with barriers strong enough not to collapse if someone falls against them.
- Keep plant and materials away from the edge.
- Avoid underground services – use relevant service drawings, service locating devices and safe digging practice.

- Provide ladder access to get in and out.
- Make sure adjacent structures are not undermined – dig well away from them.
- Check the excavation each day before work starts and after any event that may affect its stability – eg a fall of material or poor weather. Keep records so people can be sure it is safe for work to continue.

To find out more about construction health and safety, visit www.hse.gov.uk/construction.

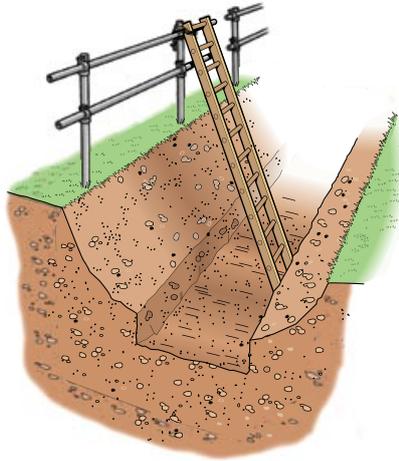
What can happen if health and safety is ignored?

An unsupported trench collapsed, killing one worker and injuring another. Heavy machinery operating at the edge of the excavation contributed to the collapse. The two companies concerned were fined a total of £320 000 and paid prosecution costs of £33 367.

See over for examples of good and bad practice ...

Digging excavations:

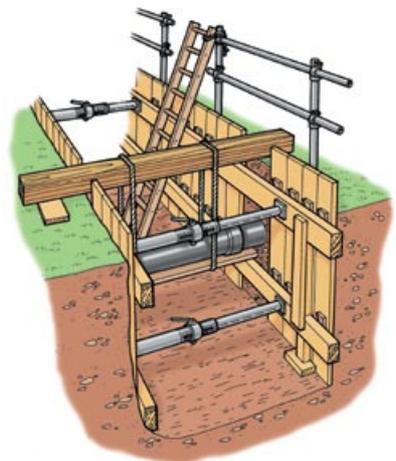
Good practice



A simple trench with sides battered back to 45° (guard rails on right hand side omitted for clarity)



Trench sheets with timber walings, screw props, puncheons and sole plates



An example of a shored excavation with ladder access and supported services (guard rails on left hand side omitted for clarity)

Bad practice

Inadequate shoring of this excavation and others like it led to the collapse of an adjoining 3-storey property (see picture, right). Luckily, no one was injured.

The construction company and its director were fined £90 000 each, ordered to pay costs of £14 444, and compensation of £3000 to each of the three displaced residents of the flats.



Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

This leaflet is available at: www.hse.gov.uk/pubns/cis64.pdf.

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The Working Well Together campaign aims to improve health and safety in the construction industry, particularly in small and micro businesses. For more information visit www.wwt.uk.com

