

## Contractor and Laborer Buried in Trench Collapse

### INCIDENT FACTS

**REPORT #:** 71-240-2023s

**REPORT DATE:** May 29, 2023

**INCIDENT DATE:** July 4, 2022

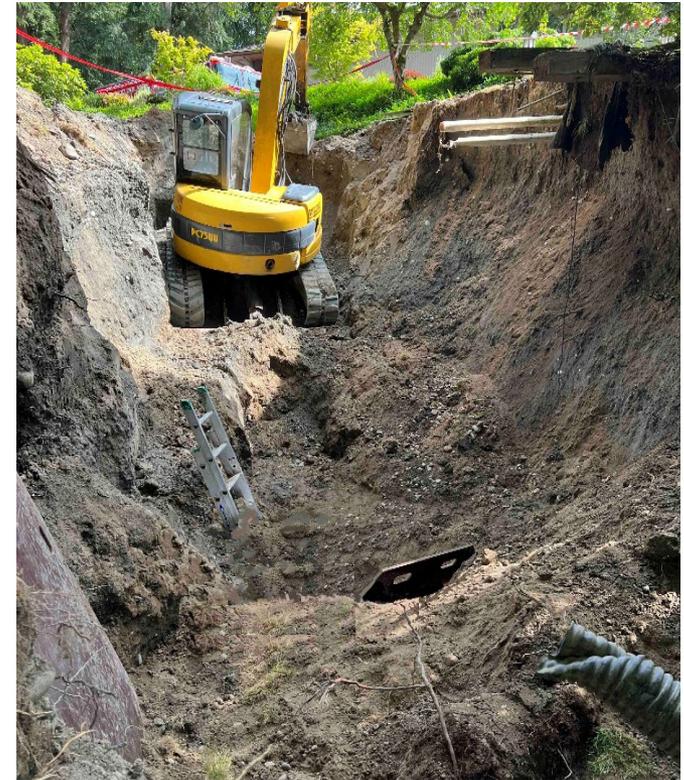
**WORKERS:** 66 and 32 years old

**INDUSTRY:** New Single-Family Housing  
Construction

**OCCUPATIONS:** Contractor and laborer

**SCENE:** Residence

**EVENT TYPE:** Trench collapse



A 66-year-old contractor and a 32-year-old laborer died when the trench they were working in collapsed, burying them.

The contractor and three employees had been working at a residence for a week to replace a sewer line. The contractor was the competent person on the site.

# ***FATALITY NARRATIVE***



To replace the sewer line they used an excavator to dig a trench that was 26-feet long and 24-feet deep. It was 24-feet wide at the top and 8-feet wide at the bottom.

The sides of the trench were steep and nearly vertical.

They dug the trench in unstable Type C soil and did not use protective systems such as shoring, shields, trench boxes or sloping and benching of the sides. The day before the incident, the trench collapsed after a rainstorm.

# ***FATALITY NARRATIVE***



On the morning of the incident, one of the workers used the large excavator to scoop out the collapsed soil. Another worker used a smaller excavator to push the spoils pile back from the trench edge.

The contractor and a laborer then used an extension ladder to enter a 10-foot deep ditch in the larger trench.

The contractor located the sewer line. He then told the other workers he was going to replace a section of the old line.

A few moments later, the trench wall collapsed, burying him and the laborer.

The two workers died of asphyxia due to suffocation.

Following the incident, investigators found:

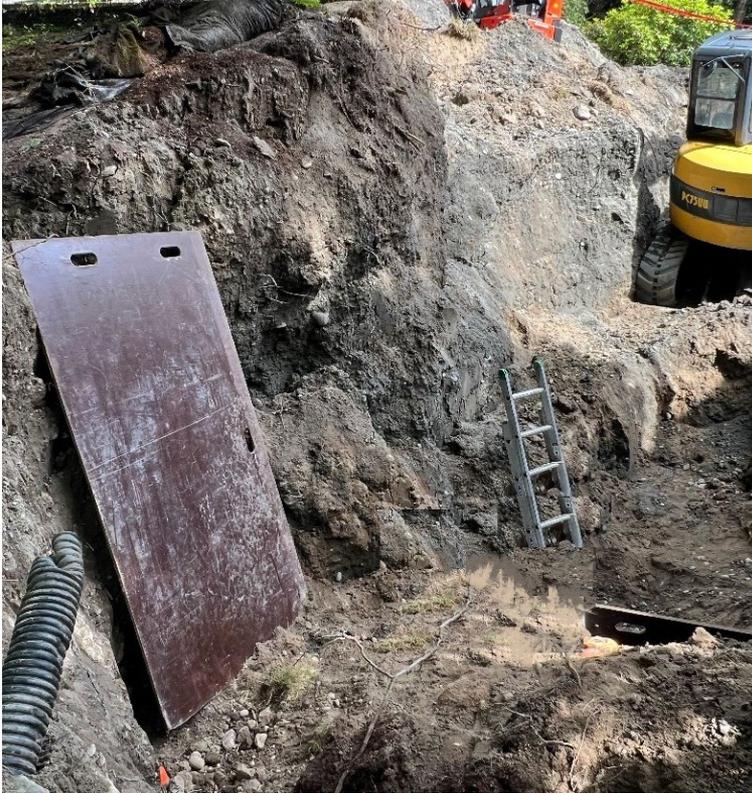
- Trench protection (shoring, shielding, benching, and sloping) was not used.
- There was some shoring equipment on site, but it was not adequate for the trench.
- No safe means of egress from trench.
- The employer had previous safety violations, including having workers in unprotected trenches and no ladder as a means of access and egress in a trench.



**Photo 1.** View of incident scene showing steep, unprotected trench walls.



**Photos 2 and 3.** Two views of the incident scene. The yellow circles show where workers were in a 5-foot wide, 10-foot deep ditch at the bottom of the trench.



**Photos 4 and 5.** Photo 4 shows unbraced steel plate in trench placed against wall of type C soil. Photo 5 shows steel plates, fin boards, and shoring beams were not used and were inadequate for the trench.

## Requirements

- Trenches must have adequate cave-in protective systems. See [WAC 296-155-657\(1\)\(a\)](#)
- Ensure that there is a safe way to exit a trench that is four feet or more in depth. See [WAC 296-155-655\(3\)\(b\)](#)
- A competent person must inspect trenches at the start of each shift and as needed throughout the shift and after a rainstorm to ensure that conditions are safe for employees. Remove employees from hazardous areas until precautions have been taken to ensure their safety. See [WAC 296-155-655\(11\)\(a\)\(b\)](#)

## Requirements

- Sloping or benching for excavations greater than 20 feet deep shall be designed by a registered professional engineer. See Appendix B—Sloping and benching, Table N-1, Note 2 [WAC 296-155-66403\(3\)\(d\)](#)
- For additional requirements: See Part N—Excavation, Trenching, and Shoring [WAC 296-155-650](#)

## **Recommendations**

FACE investigators concluded that to help prevent similar occurrences:

- Never enter a trench or excavation that does not have an adequate protective system in place.
- Inspect the trench or excavation before entering.
- Do not assume that there will be a warning sign before a cave-in or that you will have time to escape.

## **Resources**

[Trenching and Excavation](#). Washington State Department of Labor & Industries

[Preventing Worker Deaths from Trench Cave-ins](#). NIOSH

# FATALITY NARRATIVE



*This narrative was developed to alert employers and workers of a tragic incident in Washington State and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the injury.*

Developed by Washington State Fatality Assessment and Control Evaluation (WA FACE) and the Division of Occupational Safety and Health (DOSH), Washington State Dept. of Labor & Industries. WA FACE is supported in part by a grant from the National Institute for Occupational Safety and Health (NIOSH grant# 5U60OH008487). For more information visit [www.lni.wa.gov/safety-health/safety-research/ongoing-projects/work-related-fatalities-face](http://www.lni.wa.gov/safety-health/safety-research/ongoing-projects/work-related-fatalities-face).