

INJURY NARRATIVE

Pipe Layer Severely Injured in Trench Collapse

Industry: Water and Sewer Line Construction
Task: Measuring trench depth
Occupation: Pipelayer
Type of Incident: Trench collapse

Incident Date: September 9, 2014
Release Date: September 17, 2015
SHARP Report No.: 71-140-2015

In September 2014, a 29-year-old pipelayer suffered multiple serious injuries when the wall of the trench he was working in collapsed. He had worked for the employer, a small underground utility construction contractor, for approximately one-and-a-half years. On the day of the incident, the company was laying

drainage pipe on a downhill gradient. The task had been started the previous day. The excavator operator, who was also one of the company's owners, would lower a section of pipe into the trench and the pipelayer would attach it to the previous section. He would also measure the depth and grade of each section of pipe by aligning a measuring stick with the beam of a laser level situated above the trench. Because of the required slope, the trench depth increased with each section. At the time of the incident, the crew had completed laying approximately 200 feet of pipe, and the trench depth was over 6 feet. Both a trench box and a manhole box were available on site,

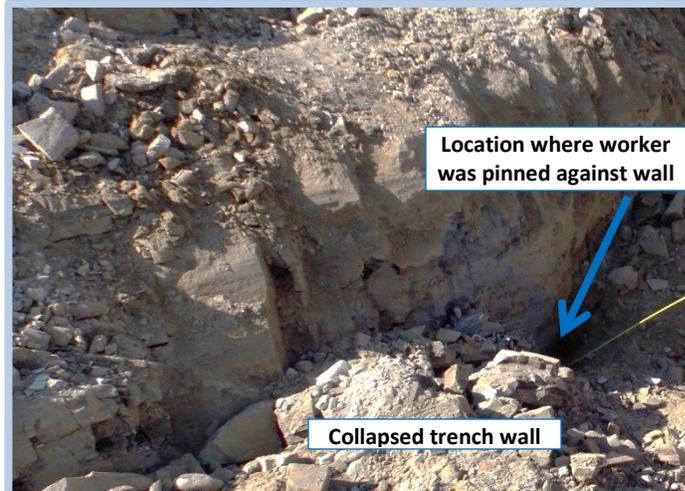


Photo of incident scene showing the collapsed trench wall and the position of the injured worker.

but no shielding or shoring was being used in the trench, and the walls were not sloped. The pipelayer had just entered the trench to take a grade measurement when the west wall collapsed, pinning him to the opposite wall. The owner heard a scream, and saw him buried to his waist in dirt and rock. The owner and other employees were able to dig the worker free before first responders arrived. The force of the cave-in fractured both of his hip sockets, pelvis, and two ribs. He was finally released to light duty work after six months off the job.

[To view a slideshow version of this narrative click here](#)

Requirements

- Employers must ensure that workers in excavations that are 4 feet or more in depth are protected from cave-ins through sloping, benching, shoring, or shielding.

See [WAC 296-155-657\(1\)\(a\)](#)

- A competent person must inspect excavations for evidence of a situation that could result in a possible cave-in daily; before work starts and as needed throughout the shift.

See [WAC 296-155-655\(11\)\(a\)](#)

Recommendations

Employers

- Pre-plan your excavation before work begins:
 - Plan the length, width, and depth of the excavation
 - Know what machinery, equipment, and materials will be involved
 - Know what hazards are associated with each task
 - Decide which protective system(s) will be used based on width, depth, and soil type
 - Communicate plans and expectations to all employees

Workers

- Never enter an unprotected excavation 4 feet or more in depth, even for a short time.

Resources

- L&I has online trenching safety resources. Go to: lni.wa.gov/safety/topics/atoz and click on [Trenching & Excavation](#)

This narrative was developed to alert employers and employees of a serious traumatic injury to a worker 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 WA State Fatality Assessment and Control Evaluation (FACE) Program and the Division of Occupational Safety and Health (DOSH), WA State Dept. of Labor & Industries. The FACE Program is supported in part by a grant from the National Institute for Occupational Safety and Health (NIOSH grant# 5 U60 OH008487-10). For more information, contact the Safety and Health Assessment and Research for Prevention (SHARP) Program, 1-888-667-4277.