

<b>Title</b>	<b>Demonstrate knowledge of and carry out work operations for trenchless pipe installation</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>20</b>

<b>Purpose</b>	People credited with this unit standard are able to demonstrate knowledge of trenchless pipe installation, and carry out work operations for trenchless pipe installation.
----------------	--

<b>Classification</b>	Infrastructure Works > Pipeline Construction and Maintenance
-----------------------	--

<b>Available grade</b>	Achieved
------------------------	----------

**Guidance Information**

- 1 Legislation and references relevant to this unit standard include: Health and Safety at Work Act 2015, Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016, Resource Management Act 1991, and Electricity Act 1992;  
*National Code of Practice for Utility Operators’ Access to Transport Corridors* 2016, available from <http://nzuag.org.nz/national-code/>;  
*Excavation Safety – Good Practice Guidelines* July 2016 and NZECP 34:2001 – *New Zealand Electrical Code of Practice for Electrical Safe Distances*, available from <https://worksafe.govt.nz>;  
 NZS 4404:2010 *Land Development and Subdivision Infrastructure*, available from <http://www.standards.govt.nz>;  
 Territorial authority requirements.
- 2 Assessment against this unit standard must take place in a workplace environment and the context must be specific to the candidate’s own role on site. Assessment parameters depend on company and site-specific equipment, procedures, and practices. Practices must reflect industry best practice and comply with legislative requirements.
- 3 **Definitions**  
*Company requirements* include the policy, procedures, and methodologies of the company. They include legislative and regulatory requirements that may apply across the company or to a specific site. Requirements are documented in the company health and safety plans, traffic management plans, contract work programmes, quality plans, policies, and procedural documents.  
*Job instructions* are instructions given to the operator prior to undertaking a job. They may include site safety instructions, contract drawings, and written memos.  
*Pipe* can include pipes not intended to carry fluid, for example ducting for communications cable.

---

## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of trenchless pipe installation.

#### Performance criteria

- 1.1 Pipe networks are described in terms of purpose and function, and reasons and criteria for using trenchless installation methods are explained.
- 1.2 Ground conditions that affect trenchless pipe installation are described in terms of their effects and company requirements for their management.
- Range composition of ground, contour, water table height, pH.
- 1.3 Types and classes of pipe used in trenchless installation are described in terms of their features, uses, handling and storage requirements, and capacity to absorb the forces of installation.
- Range three types of pipe.
- 1.4 Joints, end fixings, and anchoring used in trenchless pipe installation are described in terms of their purpose, function, and suitability for specific applications.
- 1.5 A trenchless pipe installation method is described in terms of sequence of tasks and equipment and materials used, and in accordance with company requirements.
- Range materials must include – any drilling fluids used and their function, types, and suitability for specific ground conditions.
- 1.6 Safety requirements of trenchless pipe installation are described in accordance with company requirements.
- 1.7 Public and environmental considerations when installing pipelines using trenchless methods are explained in accordance with company requirements.
- 1.8 Causes, effects and prevention techniques of pipe failures associated with installation are described.

### Outcome 2

Carry out work operations for trenchless pipe installation.

Range three operations.

#### Performance criteria

- 2.1 Job instructions are obtained and confirmed, and tools are selected, checked, and confirmed as fit for purpose in accordance with company requirements.

- 2.2 All safety, environmental, and communication protocols are confirmed as in place before starting work in accordance with company requirements.
- 2.3 Locations of adjacent services are confirmed prior to commencement of work in accordance with company requirements.
- 2.4 Any required excavation and groundwater control are carried out safely and in accordance with company requirements.
- 2.5 Equipment is set up in accordance with job instructions and company requirements.
- 2.6 Pipe is set up and installed as required by pipe type in accordance with job instructions and company requirements.
- 2.7 Pipeline is cleared, capped if required, and prepared for commissioning in accordance with job instructions and company requirements.
- 2.8 Site is disestablished and reinstatement of site is completed in accordance with job instructions and company requirements.

**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 September 2018	31 December 2023
Review	2	26 August 2021	31 December 2023

<b>Consent and Moderation Requirements (CMR) reference</b>	0101
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.