

Title	Prepare for and install sheet piles for onsite piling and deep foundation works		
Level	4	Credits	15

Purpose	People credited with this unit standard are able to, for onsite piling and deep foundation works: <ul style="list-style-type: none"> – prepare to install sheet piles; and – install sheet piles.
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Classification	Infrastructure Works > Structural Foundations
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Available grade	Achieved
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Guidance Information

- 1 Learning and assessment within this unit standard must be carried out in a construction or infrastructure works environment in accordance with industry requirements and the following legislation, as relevant to the role, and any subsequent amendments:
 - Health and Safety at Work Act 2015;
 - Resource Management Act 1991;
 - Heritage New Zealand Pouhere Taonga Act 2014;
 - Traffic Regulations 1976;
 - Land Transport Rule: Vehicle Dimensions and Mass 2016;
 - Land Transport Rule: Heavy Vehicles 2004;
 - *Structural Engineering Society New Zealand (SESOC), New Zealand Geotechnical Society (NZGS) Construction Specification Bored and Driven Piles 2022*, available from www.nzgs.org;
 - *Excavation Safety: Good Practice Guidelines 2016*, available from Worksafe www.worksafe.govt.nz;
 - *Operator Safety Manual for Earthmoving Machinery 2017*, available from Civil Contractors New Zealand <https://civilcontractors.co.nz/>.

2 Definitions

Industry requirements may refer to but are not limited to relevant policies, processes, methodologies, industry codes of practice, site specific health and safety plans, standard operating procedures, site safety plans, quality plans, work plans, traffic management plans, contract work programmes, job safety analysis, safe work method statements, job instructions, manufacturer's requirements, contract specifications, manuals, procedural documents.

Job specifications are instructions given to the operator prior to undertaking a job. They may include site safety instructions, contract drawings, and written memos.

Quality plan refers to any contract specific policy, processes, procedures, testing or certification requirements.

Sheet piles refer to sections of sheet material with interlocking clutches that are driven into the ground providing earth retention and excavation support.

Work plan refers to any job specifications or plans given to the operator prior to undertaking a job.

Outcomes and performance criteria

Outcome 1

Prepare to install sheet piles for onsite piling and deep foundation works.

Performance criteria

- 1.1 Different uses for sheet piles are explained in terms of suitability for the context.

Range excavation support, for soil retention, to stabilise backfill, for diversions, lateral earth support, prevent erosion, coffer dams, retaining walls.
- 1.2 Mobilisation, storing and stacking of sheet piles on site is completed in accordance with industry requirements.
- 1.3 Platform and plant are set up and stable in preparation for driving sheet piles in accordance with the work plan.
- 1.4 Quality plan and lifting plan requirements are confirmed and met.
- 1.5 Environmental requirements are met in terms of noise and vibration.

Outcome 2

Install sheet piles for onsite piling and deep foundation works.

Performance criteria

- 2.1 Current service plans and requirements for the area are obtained including the permit to dig.
- 2.2 Sheet pile set out, and location marking, are completed to confirm the position of the sheet piles.
- 2.3 Guiding system or frame is used to maintain position and verticality of the sheet piles.
- 2.4 Sheet pile is pitched and clutched using the appropriate lifting equipment.

Range pile clips and lift points.
- 2.5 Sheet piles are vertically plumb to avoid stress on the joints and damage to clutches while the free length of the sheet pile is adequately supported and restrained.

- 2.6 Pile driving is completed with the vibe or hammer correctly positioned or aligned to the sheet pile.
- 2.7 Verticality, position, depth, and height of the sheet piles are confirmed in accordance with the job specifications.
- 2.8 Sheet piles are extracted where relevant, cleaned, clearly marked, and stacked with spacers or dunnage to prevent distortion of the individual sheet pile.
- 2.9 Post operational procedures including pile record are completed.

Planned review date	31 December 2028
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 July 2023	N/A

Consent and Moderation Requirements (CMR) reference	0101
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@WaihangaAraRau.nz if you wish to suggest changes to the content of this unit standard.