

ASSESSMENT GUIDELINES

Unit 22196

Lay concrete as hard surface to specifications
in landscape work

Level 3, Credit 10, Version 1

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Unit standard 22196

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Level of performance required for this unit standard

This is a level 3 unit standard. At this level trainees are expected to demonstrate the following abilities when completing assessment tasks:

- To work under general supervision, with some independence; with significant responsibility for the standard of the outcome achieved.
- To apply technical skills and knowledge to complete the task to the specified standard, in a familiar context.
- To interpret available information, and use discretion and judgment.

Workplace assessment:

For guidelines on Workplace Assessment, please refer to the NZHITO Workplace Assessors Manual, and for further information, please contact: NZHITO, P O Box 8638, Christchurch. Ph 03 9644 735, Fax 03 9644 737, Website www.hortito.org.nz

Special notes:

1. *Workplace procedures* refer to verbal or written instructions to staff on procedures for the worksite and equipment.
2. Legislation relevant to this unit standard includes but is not limited to the Health and Safety in Employment Act 1992.
3. The New Zealand Standards applicable to this unit standard are:
AS/NZS 4671:2001 *Steel reinforcing materials*,
NZS 3109:1997 *Concrete construction*, and
NZS 3113:1979 *Specification for chemical admixtures for concrete*,
these are available from <http://www.standards.co.nz>.

Unit 22196: Lay concrete as hard surface to specifications in landscape work (Apprentice copy)

ELEMENT	Competent	Range of evidence an assessor should consider
Element 1 Prepare work area for laying of concrete surfaces.	Yes/No	<ul style="list-style-type: none"> ▪ Complete excavation work in accordance with workplace procedures and in accordance with the requirements of the drawings and specifications. ▪ Establish the edgings of the work to; height, line and grade shown on drawings and in accordance with the specifications and manufacture's requirements where applicable.
Element 2 Select base material to lay concrete.	Yes/No	<ul style="list-style-type: none"> ▪ Explain base materials in terms of their characteristics; use two examples of locally available materials. Range of characteristics may include but are not limited to – grading, compaction, permeability, particle size and distribution, material source. ▪ Calculate and order material requirements from; drawings, specifications, and a site check of an excavation.
Element 3 Use hand tools and light equipment in laying of base.	Yes/No	Range at least 12 of – measuring tape, straight edge, spirit level, lines, builders level, boning rods, sledge hammer, saw, hammer, rake, shovel, screed board, hand rammer, power compactor, light machine with blade or bucket, vibrating roller. <ul style="list-style-type: none"> ▪ Describe tools and equipment in terms of their uses, capabilities and limitations. ▪ Select and use tools and equipment in accordance with workplace procedures to achieve specified outcome without damage or injury to the operator or others. ▪ Maintain tools and equipment in accordance with workplace procedures. Range: clean, lubricated, free from damage, adjusted to manufacturer's recommendations.
Element 4 Lay bases for hard surfaces	Yes/No	<ul style="list-style-type: none"> ▪ Establish height, line and grade for finished hardfill, using pegs to locate measurement and heights shown on drawings or specifications. ▪ Locate and protect from damage during laying of hardfill any, services to or passing under the hard surface before the base is laid. Range of services; drainage, drainage collection points, water, electricity, gas, telephone, data cables. ▪ Lay base to specifications of hard surface material requirements and in accordance with workplace procedures. Range: layering, coarse to fine material, use of water as a compaction agent, use of lime as a stabilizer, use of geo-textiles. ▪ Compact base and finish surface to height, line and grade for establishment of edgings.
Element 5 Install edgings to hard surfaces. Range: temporary or permanent.	Yes/No	<ul style="list-style-type: none"> ▪ Set out edgings to height, line and grade as is detailed in drawings or specifications, or site requirements and purpose. ▪ Construct formwork for cast concrete edging, to provide specified profile and maintenance of height and line during pouring process. ▪ Mix concrete to specifications, then; place, finish and protect to provide edging as detailed in drawings or specifications and in accordance with workplace procedures. ▪ Construct temporary edging in accordance with workplace procedures to allow the removal of them, without causing damage to edging or hard surface at completion. ▪ Maintain and leave the site accordance with workplace procedures, in a condition which enables further work to be undertaken unimpeded.

<p>Element 6 Mix concrete for landscape work.</p>	<p>Yes/No</p>	<ul style="list-style-type: none"> ▪ Store materials to ensure their delivery quality is maintain until mixing. ▪ Use material measuring methods for mixing that ensure specified mix proportions are achieved. Range: weight, volume. ▪ Mix materials for the specified time and to the required consistency in accordance with workplace procedures. ▪ Ensure a tidy work area is maintained in accordance with workplace procedures, so that materials are not contaminated prior to mixing, and so equipment is kept free of spilt concrete.
<p>Element 7 Transport, place, and compact wet concrete.</p>	<p>Yes/No</p>	<ul style="list-style-type: none"> ▪ Ensure that transporting, placing and compacting is completed in accordance with workplace procedures and before initial set takes place. ▪ Complete transporting, placing and compacting without segregation of mix ingredients. ▪ Use transport methods to meet site requirements. Requirements may include but are not limited to – volume of concrete, access to site, access to placing point, labour available. ▪ Use compaction methods to; suit the size and scale of the work, produce the specified concrete density, and prevent damage to equipment and formwork. Give evidence for three of the following – hand rammer, hand screed, immersion vibrator, vibrating screed. ▪ Wash-down tools and equipment before concrete sets on them, and in accordance with workplace procedures.
<p>Element 8 Finish, protect and cure concrete.</p>	<p>Yes/No</p>	<ul style="list-style-type: none"> ▪ Complete concrete work to the specified line, height, and surface finish. Range of finishes – wooden float, steel float, brushed. ▪ Protect concrete from weather, traffic, and work processes until it is hardened in accordance with workplace procedures. ▪ Use curing methods that ensure that concrete is able to reach its optimum strength and hardness. Range of curing methods includes; covering, ponding, spraying, retention of formwork. ▪ Remove surplus material from the site upon completion, and ensure that the site is left in a condition that allows for further work to proceed unimpeded in accordance with workplace procedures.
<p style="text-align: right;">_____ (Name of Apprentice)</p> <p>is Competent / Not yet competent in Unit Standard 22196, version 1</p> <p>Signed (Assessor): _____</p> <p>WPA Registration Number: _____ Date: _____</p>		

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Please send this page to your NZHITO Regional Manager, who will forward it to National Office to register the credits on your NZQA Record of Learning.

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(Name of Apprentice)

is Competent in Unit Standard 22196. (version 1)

Signed (Assessor):

WPA Registration Number: _____

Date: _____