



Australian Government

CPCCCM2006 Apply basic levelling procedures

Release: 1

CPCCCM2006 Apply basic levelling procedures

Modification History

Release 1.

This version first released with CPC Construction, Plumbing and Services Training Package Version 2.

Revised unit of competency. Replaces superseded equivalent unit CPCCCM2006B Apply basic levelling procedures.

Application

This unit of competency specifies the outcomes required to carry out levelling in a single plane for the purpose of establishing correct and accurate set-out of building components. It includes the set-up, testing and use of levelling devices, and establishing and transferring heights using a range of levelling equipment.

The unit supports workers in the construction industry who use a variety of common methods and equipment when working with others and as a member of a team. It applies to levelling work on residential and commercial work sites.

No licensing, legislative, regulatory, or certification requirements apply to this unit of competency at the time of endorsement.

Pre-requisite Unit

Nil

Competency Field

Common

Unit Sector

Construction

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.

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| 1. Plan and prepare. | 1.1. Job requirements are obtained, confirmed with relevant personnel, and applied to planning. |
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| | 1.2 | Work site is inspected, and conditions and hazards are identified within scope of own role and reported according to workplace procedures. |
| | 1.3. | Health and safety requirements for levelling procedures are confirmed and applied to planning. |
| | 1.4. | Levelling tools and equipment are selected according to job requirements, checked for serviceability, and faults are rectified or reported before starting work. |
| | 1.5. | Team roles and verbal and non-verbal communication signals are confirmed, as required. |
| 2. | Set up and use levelling device. | <p>2.1. Required heights or levels are identified from work instructions.</p> <p>2.2. Levelling device is set up, and levelling device tolerance is checked according to manufacturer specifications.</p> <p>2.3. Levels are shot and heights are transferred to required location and marked according to job requirements.</p> <p>2.4. Results of levelling activities are documented according to organisational requirements.</p> |
| 3. | Clean up. | <p>3.1. Work area is cleared and materials sorted and removed or recycled according to statutory and regulatory authority requirements.</p> <p>3.2. Tools and equipment are cleaned, checked, maintained and stored according to manufacturer specifications.</p> |

Foundation Skills

This section describes the language, literacy, numeracy and employment skills essential to performance in this unit but not explicit in the performance criteria.

Skill

Performance feature

Numeracy skills to:

- interpret and calculate levelling readings and measurements.

- Reading skills to:
- read and interpret documentation from a variety of sources, including drawings and specifications.
- Writing skills to:
- enter routine data associated with levelling procedures legibly into workplace documentation.
- Planning and organising skills to:
- plan and schedule work in a logical sequence.

Range of Conditions

This section specifies work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

- Health and safety requirements*** must include:
- emergency procedures, including:
 - evacuation
 - first aid
 - hazard identification and risk control procedures
 - safe operating procedures for levelling, including:
 - manufacturer specifications
 - safe work method statements (SWMS)
 - safety data sheets (SDS)
 - selection, correct fitting, and use of personal protective equipment (PPE) prescribed under legislation, regulations and workplace policies and practices
 - selection and use of tools and equipment.

- Levelling tools and equipment*** must include:
- each of the following:
 - laser levels and targets
 - marking equipment
 - measuring tapes and rules
 - spirit levels and straight edges
 - two of the following:
 - automatic/optical levels
 - plumb bobs

- water levels.

Levelling device tolerance checks must include one or more of the following:

- reverse readings for spirit level
- two peg test for automatic level.

Marks for heights or levels must include:

- chalk or nail mark
- mark on vertical surface
- datum or survey peg
- drawing or sketch.

Levelling activities must include three or more of the following:

- measuring and recording heights for the installation of signage
- positioning offsets and recovery pegs for construction projects
- recording ground levels at respective critical set-out points
- recording heights or level and the transfer of data points
- recording or checking levels in drainage
- recording slab or pad levels for placement of steel columns or masonry piers
- setting up levelling devices
- shooting levels for concrete slabs
- transferring levels and heights for formwork.

Unit Mapping Information

CPCCCM2006B Apply basic levelling procedures

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCCCM2006 Apply basic levelling procedures

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Performance Evidence

A person who demonstrates competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. The person must also transfer levels and record differences in height for three different projects as required by job specifications, using at least three of the following levelling devices:

- a spirit level and straight edge
- automatic/optical levelling device
- levelling with water technique
- laser levelling device.

In doing the above work, the person must:

- conduct a two peg test with an automatic/optical level to confirm that the instrument meets manufacturer tolerances
- locate, interpret and apply relevant information in job specifications to the levelling task
- comply with site safety plan, and health and safety regulations applicable to workplace operations
- comply with organisational policies and procedures, including quality requirements
- safely and effectively use tools and equipment
- communicate and work effectively and safely with others, including using agreed communication signals
- confirm accuracy of the readings taken, including set-up and movement of device in two locations
- accurately record results of each levelling procedure according to organisational requirements.

Knowledge Evidence

A person demonstrating competency in this unit must demonstrate knowledge of:

- characteristics, technical capabilities and limitations of different types of levelling devices
- methods of performing calculations associated with levelling

- processes for setting out levelling tasks
- requirements for line, level and plumb in construction projects
- site and equipment safety requirements relevant to basic levelling procedures
- symbols and construction terminology used when interpreting construction plans
- techniques used when applying basic levelling procedures
- contents of and terms used in job safety analyses (JSA) and safe work method statements (SWMS) and the use of this documentation when levelling.

Assessment Conditions

Suitable assessment of performance requires:

- equipment and tools:
 - as listed in the range of conditions and assessment requirements
- specifications:
 - job requirements
 - health and safety requirements
 - manufacturer specifications
 - safety data sheets (SDS)
 - SWMS
 - workplace and relevant work site procedures
- relationships with team members and supervisor:
 - work must be completed as part of a team and under direct supervision and observation
- timeframe:
 - according to job requirements.

Assessor requirements

As a minimum, assessors must satisfy the assessor requirements in the Standards for Registered Training Organisations (RTOs) current at the time of assessment.

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