

# Unit of Competency CPCPDR3021

## Plan layout and install below ground sanitary drainage systems

### Application

This unit specifies the skills and knowledge required to plan the layout of and install below ground sanitary drainage systems for sewage and waste discharge from sanitary fixtures to approved points of connection in new or existing domestic and commercial structures.

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

### Prerequisite Unit

CPCPCM2043 Carry out WHS requirements

CPCPCM3024 Prepare simple drawings

### Elements and Performance Criteria

1. Identify installation requirements.	1.1 Access, read and determine installation requirements from job plans and specifications, relevant Australian Standards, codes, manufacturer's specifications and jurisdictional requirements. 1.2 Identify and apply workplace policies and procedures, work health and safety (WHS) and environmental requirements. 1.3 Plan and draw the layout of a sanitary drainage system.
2. Prepare for work.	2.1 Create a materials list and collect materials. 2.2 Select appropriate tools and equipment including personal protective equipment (PPE).
3. Install sanitary drainage.	3.1 Establish and set out fixture locations, levels and heights to align with existing or new connection points. 3.2 Excavate trench to specified depth and grade using manual tools and equipment or mechanical means. 3.4 Fabricate and install sanitary drainage pipework, connecting to a new or existing system and test installation. 3.7 Prepare an as constructed drawing.
4. Clean up.	4.1 Clear the work area, and dispose of, reuse or recycle materials in accordance with state and territory legislation and workplace policies and procedures. 4.2 Clean tools and equipment, check for serviceability and report any damage, and store and secure.

### Foundation skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Unit Mapping Information

Supersedes and is non-equivalent to CPCPDR3021A Plan layout of a residential sanitary drainage system, and CPCPDR3022A Install below ground sanitary drainage systems.

## Links

Companion Volume Implementation Guide:

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

# Assessment Requirements for CPCPDR3021

## Plan layout and install below ground sanitary drainage systems

### Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria for this unit by:

- planning the layout and install a vented below-ground sanitary drainage system with a minimum length of 10 metres to connect a:
  - o bathroom group including floor waste gully with fixtures connected
  - o WC
  - o laundry trough
  - o kitchen sink
  - o soil or waste stack to a minimum of two floor levels

The system must include inspection openings and shafts and connection to an approved point of discharge, provision for an overflow relief gully or reflux valve as required, and provision for articulation in drainage for soil movement.

- testing a sanitary drainage system
- cutting in a branch to an existing drain to connect a new WC or another fixture.

### Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- terminology relating to the installation of below-ground sanitary drainage systems
- principles of drainage design and working drawings conventions, symbols and abbreviations
- trench support
- how to obtain, transfer and record levels and heights
- sewerage inspection chambers
- approved materials and their characteristics and application for the installation of below-ground sanitary drainage systems
- processes, procedures and techniques for the installation of below-ground sanitary drainage systems, including testing
- how to access relevant information, including codes and Australian standards
- work health and safety (WHS) requirements for planning the layout and for installation of below-ground sanitary drainage systems.

### Assessment Conditions

Assessors must satisfy the requirements for assessors listed in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

## Links

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