

# Unit of Competency CPCPSN3011

## Plan the layout of a residential sanitary plumbing system and fabricate and install sanitary stacks

### Application

This unit specifies the skills and knowledge required to plan the layout of a residential sanitary plumbing system for a three-storey residence.

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

### Elements and Performance Criteria

1. Plan and identify installation requirements.	1.1	Access, read and determine sanitary plumbing system installation requirements from plans, job specifications, codes, relevant Australian Standards, manufacturers' instructions and jurisdictional requirements.
	1.2	Identify and apply workplace, work health and safety (WHS) and environmental requirements.
	1.3	Plan and record layout of sanitary plumbing 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 and test sanitary stack.	3.1	Set out sanitary stack.
	3.2	Locate and install fixings and supports.
	3.3	Fabricate, join and install stacks.
	3.4	Test sanitary stack installation.
4. Clean up.	4.1	Clear the work area and dispose of, reuse or recycle materials in accordance with state or territory legislation and workplace requirements.
	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 CPCPSN3023A Fabricate and install sanitary stacks, and CPCPSN3011B Plan layout of a residential sanitary plumbing system.

## Links

Companion Volume Implementation Guide:

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

# Assessment Requirements for CPCPSN3011

## Plan the layout of a residential sanitary plumbing system and fabricate and install sanitary stacks

### Performance Evidence

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

- planning the layout for residential sanitary plumbing systems, from given plans and specifications for a three-storey residence, including the following fixtures on each floor:
  - a bath
  - a shower
  - a water closet
  - a basin
  - a floor waste gully
  - a kitchen sink
  - a laundry tub
- fabricating and installing, from a given set of plans and job specifications, three different installations of sanitary plumbing systems across a minimum of two building levels including the following fixtures on each level:
  - a bath
  - a shower
  - a water closet
  - a basin
  - a floor waste gully
  - a kitchen sink
  - a laundry tub
- fabricating and installing each planned sanitary system including:
  - using two different materials
  - connecting the discharge piping at each floor
  - preparing stack connection to below ground drain
  - testing the sanitary system.

### Knowledge Evidence

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

- terminology relating to sanitary plumbing systems
- installation requirements of sanitary plumbing fixtures
- properties of soil and waste discharges, including temperature and corrosive discharges

- approved materials and components, their characteristics and application relating to sanitary plumbing systems
- how to access relevant information, including codes and standards
- materials and equipment used for planning the installation of residential sanitary plumbing systems
- work health and safety (WHS) requirements for planning the installation of residential sanitary plumbing systems
- properties of soil and waste discharges, including temperature and corrosive discharges
- approved materials and components, their characteristics and application relating to sanitary plumbing systems
- principles of sanitary plumbing systems:
  - o elevated pipework
  - o fully vented modified
  - o reduced velocity aerated stack systems
  - o single stack
  - o single stack modified
- how to locate underground services
- how to access relevant information, codes and standards
- tools, materials and equipment used to fabricate and install sanitary stacks
- WHS requirements for fabricating and installing sanitary stacks.

## 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

Companion Volume Implementation Guide:

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