

INSTALL RAINWATER HARVESTING SYSTEMS

UNIT CODE: CON/OS/PL/CR/02/4/A

UNIT DESCRIPTION

This unit covers the competencies required to install rainwater harvesting systems. It involves interpreting the working drawings, quantifying materials and supplies, installing and testing of rainwater harvesting system and carrying out housekeeping practices.

This standard applies in construction industry.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the key outcomes which make up workplace function .	PERFORMANCE CRITERIA These are assessable statements which specify the required level of performance for each of the elements. <i>Bold and italicized terms are elaborated in the Range</i>
1. Interpret working drawing	1.1 Working drawing are interpreted based on technical drawings standards. 1.2 The scale of the drawing is read based on the legend. 1.3 Imperial measurements are converted into metric measurements based on scale. 1.4 Symbols are identified based on technical drawings standards. 1.5 Reference points are identified on the ground based on the site drawing.
2. Quantify rainwater harvesting materials and supplies	2.1 <i>Rainwater harvesting materials</i> required are identified based on the drawings and specifications. 2.2 <i>Supplies</i> are identified based on specifications. 2.3 Materials and supplies required are measured and counted based on working drawings and specifications 2.4 A schedule of materials is created based on the drawing.
3. Install rainwater harvesting goods	3.1 <i>Rainwater harvesting goods</i> are identified based on the drawing 3.2 Measurements are taken and marking out is done based on the drawing

	3.3 Material is cut based on drawings. 3.4 Pieces are joined based on specifications 3.5 Pieces are assembled based on working drawing 3.6 Rain water goods is installed based on working drawing 3.7 Safety and health practices are observed based on OSHA
4. Test rainwater harvesting system	4.1 Water test is conducted based on best practices. 4.2 Faults in structure and functionality of rainwater harvesting system are corrected based on best practice.
5. Carryout housekeeping activities	5.1 Wastes are segregated and disposed of in line with environment protection guidelines. 5.2 Tools and equipment are cleaned and storage as per manufacturers' instructions. 5.3 Surplus materials and supplies are stored as per manufacturers' instructions. 5.4 Records are kept as per workplace procedure.

RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

Variables	Range
1. Rainwater harvesting materials include but not limited to:	<ul style="list-style-type: none"> • Down pipes • Gutters • Brackets • Hopper head • Rainwater shoe • Assorted rainwater storage tanks

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit of competency.

Required Skills

The individual needs to demonstrate the following skills:

- Interpersonal skills
- Communication skills
- Sketching skills
- Interpretation skills
- Problem-solving skills
- Critical thinking skills
- Organizing skills
- Measuring skills
- Numeracy skills
- Cutting skills
- Threading skills
- Bending skills
- Interpersonal Relationship skills

Required Knowledge

The individual needs to demonstrate knowledge of:

- Interpretation of symbols
- Conversion of units
- Materials and supplies
- Rainwater goods tools and equipment's
- Methods of jointing
- Bending methods
- Mensuration
- Faults in rainwater goods

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Interpreted the working drawing correctly. 1.2 Used rainwater goods tools and equipment correctly. 1.3 Quantified required supplies and materials accurately. 1.4 Installed rainwater systems appropriately 1.5 Tested rain water systems and work correctly. 1.6 Conducted housekeeping on work area correctly 1.7 Observed safety and health practises appropriately
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2. Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 2.1 A functional workshop with basic plumbing tools, equipment, materials and supplies. 2.2 References and manuals including construction working drawings 2.3 Personal protective equipment
3. Methods of Assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Observation 3.2 Oral questions 3.3 Written tests 3.4 Interviewing 3.5 Third party report 3.6 Portfolio
4. Context of Assessment	<p>Assessment may be done:</p> <ul style="list-style-type: none"> 4.1 On-the-job, 4.2 Off-the-job or 4.3 During Work placement.
5. Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.</p>