USE CAD SOFTWARE TEMPLATE TO PRODUCE
2-D DRAWINGS OF RESIDENTIAL BUILDINGS
CERTIFICATE II IN BUILDING AND CONSTRUCTION
(PATHWAY – PARAPROFESSIONAL)
30014
LECTURER’S GUIDE
BUILDING AND CONSTRUCTION
Use CAD software template to produce 2-D drawings of residential buildings

30014

Lecturer’s guide
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Use CAD software template to produce 2-D drawings of residential buildings
Lecturer's guide
Introduction

This lecturer’s guide takes you through the various documents associated with the unit of competency and the resources you will require to deliver it. It also provides some suggestions to assist you in delivering and assessing the knowledge and skills learners need to support them in their role as a paraprofessional employee or future self-employed contractor.

Areas of explanation include:

- CAD terminology
- file management
- drawing templates
- drawing tools
- annotation
- plotting drawings
- plan types
- producing drawings.

It is intended that the content of this unit will be delivered face-to-face in a classroom environment.

Qualification overview

This unit of competency, 30014 *Use CAD software template to produce 2-D drawings of residential buildings*, forms part of Certificate II in Building and Construction (Pathway – Paraprofessional) and is aimed at those people who are considering a paraprofessional career in the residential building industry (as opposed to the trade sector).

The course consists of 12 units of study and a period of work experience. These two components, study and work, will provide learners with an introductory background to the paraprofessional side of the residential building industry.

To progress further in the industry beyond this introductory level, learners will then need to specialise in a particular field of study, such as building, estimating, scheduling, drafting, or building design. Courses for these careers usually commence at Certificate IV level and progress through to diploma or even advanced diploma levels at a registered training provider who delivers these programs.

Some areas of study, such as architecture, interior design and construction management, can then be studied further at degree level at university.
Unit overview

This unit of competency specifies the outcomes required to produce two-dimensional (2-D) drawings of simple residential buildings using computer-aided design (CAD) software with the use of an existing drawing template.

The full unit of competency details are provided for you at Annex A to this guide.

Competency in this unit will be demonstrated by successful completion of two assessments:

- Assessment 1 – Draw, modify and annotate a drawing
- Assessment 2 – Produce drawings of a simple residential building.

Resources and preparation

You will need to provide learners with:

- access to a classroom with computers with the latest version of a CAD software package
- a range of suitable sample CAD drawings in electronic and hard copy.

Learners will need to provide the following materials for in-class work and activities:

- a USB thumb drive
- an A4 note pad
- pens, pencils, eraser and a scale rule
- an A4 file for notes, handouts and printed documents
- a calculator.

The content of the learner’s guide for this unit was written from an operating knowledge of Autodesk® AutoCAD® and based on the Windows® operating environment. However, every attempt has been made to make the content generic so that the descriptions, methods and exercises are suitable for use with computer-aided drawing (CAD) programs in general.

If a program other than AutoCAD® is used, it is strongly recommended that to avoid confusion in class, you compare the guide with your program beforehand and note any differences.

It is also recommended that all activities and assessments are ‘test driven’ before class, to check that the information and instructions are compatible and will work effectively with whatever CAD software you’re using.

This unit assumes a basic level of computer literacy. If that’s not the case for learners in your class, please make appropriate adjustments to your delivery.
How to use an operating system is outside the scope of the unit and therefore is not covered in this guide. You will have to ascertain whether all the learners are familiar with your operating system and conduct some basic training in it if there is a shortfall.

Throughout the learner’s guide, learners are instructed to use various CAD tools and program features to perform prescribed activities. As it is not practical for electronic files to accompany this lecturer’s guide, you will need to supply any necessary files and templates in your chosen software format to your learners. These files could be located in a folder accessible to all learners (eg on a shared network), or provided on a CD-ROM or USB thumb drive.

Check the resources column of the delivery plan, provided at Annex B to this guide, for preparation required in each section of the program.
Use CAD software template to produce 2-D drawings of residential buildings

Lecturer’s guide
Delivery strategy

The following notes will help you to prepare for and deliver this unit. Each topic may require specific information resources while other topics might share resources over a number of weeks’ delivery.

If you have not done so already, get a copy of the learner’s guide and familiarise yourself with it. Also look at the delivery plan provided at Annex B to this guide.

Activities

Short in-class activities are included in Sections 1 to 6 for learners to complete while the topic content is fresh in their minds. You should try to complete these activities yourself before class so that you can be prepared to help learners who have difficulty completing the tasks. You may also need to prepare additional activities for each section, either to challenge learners who are progressing well or to support learners who need extra practice.

The activities in the guide refer to two sets of plans – Johnston Street and Sanderson Street. These plans are both for double brick homes so, if this is not a common construction method in your area, you may need to substitute suitable plans. It would be beneficial for learners to develop knowledge of a range of building methods and how they are represented in drawings, so providing a variety of plans for your group to study would be useful.

Some sample activities, based on AutoCAD®, are provided at Annex G to this guide, as a starting point to help you design something similar in the software you are using.

Assessments

As with the in-class activities, you should complete the two assessments in advance so you are able to show learners a sample before they begin their own submission. Alternatively, you could provide existing examples of similar drawings.

For Assessment 1, learners are required to complete an exercise using 2-D CAD software, which will demonstrate their competence in creating, modifying and annotating a drawing.

For Assessment 2, learners are required to produce elevations for the building. Some CAD software requires these to be drawn manually while others create them based on the floor plan. You will need to modify the activities and assessment items related to elevations to suit the software you are using.
Use CAD software template to produce 2-D drawings of residential buildings
Lecturer’s guide
The learner’s guide

Format and intent

General

The learner’s guide contains all of the unit’s information and the content of each topic. This content should be reviewed in the context of your training organisation’s resources, local industry preferences and the type of CAD software available. Resources noted in the guide may also vary from region to region.

All activities are designed to be written directly into the learner’s guide. When learners have finished the unit, their guide should be complete and able to be used as a reliable reference in the future. For this to be the case, the activities need to be checked and/or discussed to give learners the opportunity to correct any incorrect or incomplete parts.

Note: the learner’s guide is not intended to be content-heavy, and it is not a text book. It is designed to complement your classroom delivery and provide learners with a summary of the unit content.

For this unit

The learner’s guide provides a variety of materials to help you deliver this unit. It is designed to allow learners to progress at their own pace, under your supervision. If progress is faster than the suggested program, extra exercises can be provided.

The learner’s guide takes two approaches. The first approach, in the first six sections of the guide, requires learners to work through the various steps they will need to master the skills to create a simple CAD drawing. For each step, basic information is presented followed by a practice activity. The second approach, introduced when learners have worked through the basic CAD skills, requires them to put all these skills together to produce a set of drawings using a template.

Given that learners are likely to lack experience of any of this content, you may have to guide them through the topics on most occasions. However, learners should be encouraged to use problem-solving skills so as to develop their knowledge of other tool options used to produce simple residential drawings using CAD software.

The type of CAD software used to deliver this unit will vary for different institutions or organisations within and between states and territories. Local area requirements may also have an impact on the content of this unit. The delivery methods and resources listed in this guide may have to be varied to meet these needs.
Use CAD software template to produce 2-D drawings of residential buildings
Lecturer’s guide
Assessment summary

The two assessments in this unit are designed to assess competency in the elements of the unit. These assessments are completed progressively throughout the sessions, rather than as stand-alone items.

Assessment 1 requires learners to complete an exercise using 2-D CAD software, to draw, modify and annotate a drawing. The drawing requirements are listed in the accompanying assessment instruments and will be identified as learners progress through the session topics.

Assessment 2 requires learners to prepare a set of drawings for a simple residential building to building approval standard. The drawing requirements are listed in the accompanying assessment instruments and will be identified as learners progress through the session topics.

An assessment plan providing a suggested scheduling of the assessment is provided at Annex C to this guide.

A matrix is included at Annex E to this guide, showing how the assessment tasks map to the unit performance criteria.

Results and appeals

Please refer to your training organisation or association website for information about the assessment process.
Use CAD software template to produce 2-D drawings of residential buildings
Lecturer’s guide
Annex A – Unit details

<table>
<thead>
<tr>
<th>Unit title</th>
<th>Use CAD software template to produce 2-D drawings of residential buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptor</td>
<td>This unit of competency specifies the outcomes required to produce two-dimensional (2-D) drawings of simple residential buildings using computer-aided design (CAD) software with the use of an existing drawing template.</td>
</tr>
<tr>
<td>Employability skills</td>
<td>The following employability skills are an integral part of the delivery of this unit. They include: communication; teamwork; problem solving; initiative and enterprise; planning and organising; self-management; learning; and technology.</td>
</tr>
<tr>
<td>Pre/co-requisite units</td>
<td>Read and interpret plans and specifications, and Carry out basic measurements and calculations for residential buildings</td>
</tr>
<tr>
<td>Application</td>
<td>This unit of competency develops an awareness of how CAD software is used to develop drawings. It assumes a suitable template has already been created so the person can develop elementary skills in an established drawing environment. A simple residential building for this unit is defined as one of up to three rooms in which a person can live. The unit supports people who will undertake further qualifications related to positions in offices such as those of a builder, estimator or drafting service.</td>
</tr>
<tr>
<td><strong>Element 1</strong> Develop basic CAD skills</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td></td>
</tr>
<tr>
<td>1.1 Understand common terminology relating to CAD</td>
<td></td>
</tr>
<tr>
<td>1.2 Perform <em>basic drawing and modifying</em> commands</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Element 2</strong> Use an existing drawing template file</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Understand the purpose and features of a template</td>
</tr>
<tr>
<td>2.2 Identify, access and load a template</td>
</tr>
<tr>
<td>2.3 Utilise components contained in the template to draw and modify <em>simple objects</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Element 3</strong> Produce simple residential building drawings</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Clarify and confirm the <em>drawing requirements</em></td>
</tr>
<tr>
<td>3.2 Produce the drawings for simple residential buildings</td>
</tr>
<tr>
<td>3.3 Add notation that complies with common standards and drawing protocols to the drawings as required</td>
</tr>
<tr>
<td>3.4 Add dimensions, using appropriate scales in accordance with common standards and <em>drawing protocols</em> as required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Element 4</strong> Edit drawing components</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Elements that are not required are deleted from an existing drawing</td>
</tr>
<tr>
<td>4.2 Editing commands are used to modify drawing elements and existing text</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Element 5</strong> Plot CAD drawings</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Edit linetype scale settings to produce an appropriate variety of linetypes in the final plot</td>
</tr>
<tr>
<td>5.2 Set up viewports on the page layout to control the scale of the plot</td>
</tr>
<tr>
<td>5.3 Edit plot settings to control lineweights in the drawing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Element 6</strong> Save and backup files</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Suitable file directories are created for the drawing project</td>
</tr>
<tr>
<td>6.2 Drawing files are saved and backed up correctly to specified drives or directories</td>
</tr>
<tr>
<td>6.3 Saved files are retrieved, renamed and edited as required</td>
</tr>
</tbody>
</table>
Required skills and knowledge

This describes the essential skills and knowledge and the level required for this unit.

Essential knowledge

Understanding of:

- drawing conventions and features, including:
  - scale
  - key
  - symbols
  - conventions
- relevant building codes, standards and regulations of Australia
- safe work methods.

Essential skills

Ability to:

- complete workplace documentation
- provide clear and direct communication using questions to identify and confirm requirements, share information, listen and understand
- demonstrate basic design, drawing and drafting skills using CAD with a template already established
- demonstrate numeracy skills to apply measurements and make calculations.
Range statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

| Basic drawing and modifying commands may include: | • lines  
• polylines  
• arcs  
• circles  
• text  
• hatch  
• dimensions |
| --- | --- |
| Simple objects may include: | • house fittings and fixtures  
• making library blocks of windows and doors |
| Drawing requirements may include: | • details of what is required  
• types of drawing, including:  
  ◦ elevations  
  ◦ floor plans |
| Drawing protocols may include: | • abbreviations  
• commonly used symbols  
• legends  
• lettering standards  
• numbering  
• paper size  
• scale  
• standard units of measurement |
Evidence guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this course.

<table>
<thead>
<tr>
<th>Critical aspects of assessment and evidence required to demonstrate this competency unit:</th>
<th>A person who demonstrates competency in this unit must be able to provide evidence of:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• understanding and using a template</td>
</tr>
<tr>
<td></td>
<td>• applying typical CAD software to drawings of simple residential buildings</td>
</tr>
<tr>
<td></td>
<td>• producing clear and effective CAD drawings of simple residential buildings with appropriate notation and dimensioning</td>
</tr>
</tbody>
</table>

| Access and equity considerations: | Reasonable adjustment may be made to meet individual learner needs |

| Context of and specific resources for assessment: | This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints. |
|  | Assessment of essential underpinning knowledge will usually be conducted in an off-site context. |
|  | Assessment is to comply with relevant regulatory or Australian standards' requirements. |
|  | Resource implications for assessment include: |
|  | • an induction procedure and requirement |
|  | • realistic tasks or simulated tasks covering the mandatory task requirements |
|  | • relevant specifications and work instructions |
|  | • tools and equipment appropriate to applying safe work practices |
|  | • support materials appropriate to activity |
|  | • workplace instructions relating to safe working practices and addressing hazards and emergencies |
|  | • material safety data sheets |
|  | • research resources, including industry related systems information |

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.
<table>
<thead>
<tr>
<th>Method of assessment</th>
<th>Assessment methods must:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Integrated Framework Training Package</td>
</tr>
<tr>
<td></td>
<td>• include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application</td>
</tr>
<tr>
<td></td>
<td>• reinforce the integration of employability skills with work place tasks and job roles</td>
</tr>
<tr>
<td></td>
<td>• confirm that competency is verified and able to be transferred to other circumstances and environments.</td>
</tr>
</tbody>
</table>

Validity and sufficiency of evidence requires that:

• competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace |
• where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice. A decision on competency should only be taken at the point when the assessor has complete confidence in the person’s demonstrated ability and applied knowledge |
• all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.
Annex B – Delivery plan

The following notes will help you to prepare for the delivery of this unit’s content.

The learner’s guide is a required resource for all sessions. In addition, each session may require specific resources (see below), while some will share resources over a number of weeks’ delivery.

This delivery plan is not the only way the unit content could be delivered. Delivery methods may vary depending on local and/or organisational requirements, as well as the characteristics of your learner group.

**Note:** This delivery plan is based on 15 × two-hour sessions. A different session length or number of sessions will require adjustments to the plan.

<table>
<thead>
<tr>
<th>Session</th>
<th>Performance criteria</th>
<th>Guide</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.1, 1.2, 2.1, 2.2, 2.3, 6.1, 6.2, 6.3</td>
<td><strong>Sections 1, 2 and 3</strong> Qualification and unit overview Activity 1.1 – Introduction to basic CAD skills Activity 1.2 – Parts of the CAD interface Section 2 – File management File types, file directories, file paths Saving and backing up files Activity 2.1 – File management Section 3 – Drawing templates Activity 3.1 – Using a drawing template</td>
<td>List of software and reasons for use Resource notes naming and describing parts of the interface Print a screenshot of your own CAD interface for this activity. You could also use a data projector to show one on screen and work through it with learners. Electronic example of file management Electronic examples Electronic samples of templates and drawings</td>
</tr>
<tr>
<td>Session</td>
<td>Performance criteria</td>
<td>Guide</td>
<td>Resources</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------</td>
<td>-------</td>
<td>-----------</td>
</tr>
</tbody>
</table>
| 2       | 1.1, 1.2, 2.1, 2.2, 2.3, 3.1, 4.1, 4.2, 6.2, 6.3 | Section 4  
Introduce Assessment 1  
– Draw, modify and annotate a drawing  
Scale, units, Cartesian coordinates, polar coordinates, dynamic input  
Activity 4.1, 4.2, 4.3, 4.4  
Object properties, Osnaps, pan and zoom commands, line drawing | Samples of Assessment 1 (refer to Annex F)  
Sample of detailed instructions for Assessment 1 (refer to Annex F) |
| 3       | 1.1, 1.2, 2.3, 3.1, 4.1, 4.2, 6.2, 6.3 | Continue Assessment 1  
– Draw, modify and annotate a drawing  
Draw commands  
Selecting objects  
Modify commands | Software-specific resource notes  
Software help feature |
| 4       | 1.1, 1.2, 2.3, 3.1, 3.3, 3.4, 4.1, 4.2, 5.1, 5.2, 5.3, 6.2, 6.3 | Continue Assessment 1  
– Draw, modify and annotate a drawing  
Text – general notes, titles, placing text on a drawing  
Activity 5.1 Dimensioning – placing dimensions on a drawing  
Section 6 – Plot CAD drawings  
Plotting a drawing, sheets or layouts  
Views, view scale and appearance  
Plot set-up  
Plot Assessment 1 | Software-specific resource notes  
Software help feature |
<table>
<thead>
<tr>
<th>Session</th>
<th>Performance criteria</th>
<th>Guide</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1.1, 1.2, 2.3, 3.1, 3.2, 4.1, 4.2, 6.2, 6.3</td>
<td><strong>Assessment 1 due</strong>&lt;br&gt;Section 7 – Drawing requirements&lt;br&gt;Introduce Assessment 2&lt;br&gt;Drawing template components&lt;br&gt;Blocks, layers, properties&lt;br&gt;Section 8 – Floor plans&lt;br&gt;Activity 7.1 – Drawing types, floor plan, drawn elements</td>
<td>Samples of different drawing types&lt;br&gt;Samples of a plan to use for Assessment 2&lt;br&gt;Completed samples of/or similar to Assessment 2&lt;br&gt;Electronic copies of template components&lt;br&gt;Software help feature&lt;br&gt;Software-specific resource notes</td>
</tr>
<tr>
<td>6</td>
<td>1.1, 1.2, 2.3, 3.1, 3.2, 4.1, 4.2, 6.2, 6.3</td>
<td><strong>Continue Assessment 2</strong>&lt;br&gt;Section 8 – Floor plans&lt;br&gt;Floor plan – drawn elements – walls, windows and doors</td>
<td>Software-specific resource notes</td>
</tr>
<tr>
<td>7</td>
<td>1.1, 1.2, 2.3, 3.1, 3.2, 4.1, 4.2, 6.2, 6.3</td>
<td><strong>Continue Assessment 2</strong>&lt;br&gt;Section 8 – Floor plans (continued)&lt;br&gt;Floor plan – drawn elements – fittings and fixtures, roof, services, completion</td>
<td>Software-specific resource notes</td>
</tr>
<tr>
<td>8</td>
<td>1.1, 1.2, 2.3, 3.3, 3.4, 4.1, 4.2, 6.2, 6.3</td>
<td><strong>Continue Assessment 2</strong>&lt;br&gt;Section 8 – Floor plans (continued)&lt;br&gt;Activity 8.2 – Floor plan – annotation elements – dimensioning</td>
<td>Software-specific resource notes</td>
</tr>
<tr>
<td>Session</td>
<td>Performance criteria</td>
<td>Guide</td>
<td>Resources</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>9</td>
<td>1.1, 1.2, 2.3, 3.3, 3.4, 4.1, 4.2, 6.2, 6.3</td>
<td>Continue Assessment 2 Section 8 – Floor plans (continued) Floor plan – annotation elements – titles and general notes</td>
<td>Software-specific resource notes</td>
</tr>
<tr>
<td>10</td>
<td>1.1, 1.2, 2.3, 3.1, 3.2, 4.1, 4.2, 6.2, 6.3</td>
<td>Continue Assessment 2 Section 9 – Elevations Activity 9.1 – Elevation elements, front elevation</td>
<td>Software-specific resource notes</td>
</tr>
<tr>
<td>11</td>
<td>1.1, 1.2, 2.3, 3.1, 3.2, 4.1, 4.2, 6.2, 6.3</td>
<td>Continue Assessment 2 Section 9 – Elevations (continued) Elevation elements, rear, elevation, side elevations</td>
<td>Software-specific resource notes</td>
</tr>
<tr>
<td>12</td>
<td>1.1, 1.2, 2.3, 3.3, 3.4, 4.1, 4.2, 6.2, 6.3</td>
<td>Continue Assessment 2 Section 9 – Elevations (continued) Elevations – annotation elements, dimensioning, titles and general notes</td>
<td>Software-specific resource notes</td>
</tr>
<tr>
<td>13</td>
<td>1.1, 1.2, 2.1, 2.3, 3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 6.2, 6.3</td>
<td>Continue Assessment 2 Section 10 – Site plans Activity 10.1 – Site plan elements, drawn Site plan – annotation elements – dimensioning, titles and general notes</td>
<td>Software-specific resource notes</td>
</tr>
<tr>
<td>14</td>
<td>5.1, 5.2, 5.3</td>
<td>Continue Assessment 2 Section 11 – Plot a CAD drawing Sheet set-up Plot set-up <strong>Plot Assessment 2</strong></td>
<td>Software-specific resource notes</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>Section 12 – Summarise unit outcomes Review assessment outcomes</td>
<td>Assessment items</td>
</tr>
</tbody>
</table>
Annex C – Assessment plan

The two assessments in this unit are designed to assess competency in the elements of the unit, as listed in the unit details at Annex A to this guide.

<table>
<thead>
<tr>
<th>Due</th>
<th>Assessment</th>
<th>Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 5</td>
<td><strong>Assessment 1 – Draw, modify and annotate a drawing</strong></td>
<td>1, 2, 4, 5 &amp; 6</td>
</tr>
<tr>
<td></td>
<td>Learners are required to complete an exercise using 2-D CAD software to draw, modify and annotate a drawing. The drawing requirements are listed in detail at Annex D.</td>
<td></td>
</tr>
<tr>
<td>Session 14</td>
<td><strong>Assessment 2 – Produce drawings of a simple residential building</strong></td>
<td>All</td>
</tr>
<tr>
<td></td>
<td>Learners are required to prepare a set of drawings for a simple residential building, to building approval standard. The drawing requirements are listed in detail at Annex D.</td>
<td></td>
</tr>
</tbody>
</table>
Use CAD software template to produce 2-D drawings of residential buildings

Lecturer’s guide
Annex D – Assessments
Use CAD software template to produce 2-D drawings of residential buildings
Lecturer’s guide
Assessment 1 – Draw, modify and annotate a drawing

Introduction

You are required to complete an exercise using 2-D CAD software, which will demonstrate your competence in creating, modifying and annotating a drawing. This exercise will enable you to develop knowledge and skills in creating basic 2-D CAD objects. These objects form the basis of all drawings of residential buildings and include linework, text and dimensioning.

Format

The drawing will be submitted for assessment on an A3 sheet with a cover page. The submission must include the cover sheet and marking guide.

Submission

Hand a paper plot to your lecturer at the beginning of class in Session 5.
Use CAD software template to produce 2-D drawings of residential buildings

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Use CAD software template to produce 2-D drawings of residential buildings

Assessment 1 – Draw, modify and annotate a drawing

Name ___________________________ Date ___________

I have received feedback on this assessment.

Signature ___________________________ Date ___________

Assessor’s initials
Assessment 1 – Draw, modify and annotate a drawing

Instructions

The following requirements for this assessment are dependent on the CAD software you are using.

1. Open the drawing template previously saved to your directory.
2. Save the template as a drawing file to your directory with the file name provided by your lecturer.
3. Save a backup copy to a temporary storage device.
4. Create objects using draw commands including – line, rectangle, polygon, circle, arc, hatch. Change object properties including colour, linetype and lineweight.
5. Modify objects using modify commands including – move, copy, rotate, offset, mirror, extend and trim.
6. Add and modify text with and without leaders.
7. Add dimensions to the shape provided.
8. Open the sheet layout and complete the title block as instructed by your lecturer.
9. Open the plotting dialogue box, and set up to plot as instructed by your lecturer.
10. Plot the finished tutorial at a scale of 1:1.
11. Complete and plot an A3 cover page as instructed by your lecturer.

Your lecturer will give you more specific instructions if needed.
Use CAD software template to produce 2-D drawings of residential buildings
Lecturer’s guide
Assessment 2 – Produce drawings of a simple residential building

Introduction

You are required to prepare a set of drawings for a simple residential building. The drawings will be completed to building approval standard and demonstrate your knowledge and skills in producing basic architectural drawings to industry standards and plotting computer-generated drawing files. You will also demonstrate your knowledge and skills in applying architectural drafting standards and conventions as well as managing computer-generated drawing files.

Format

The drawing will be submitted in two parts:

• a paper copy on A3 sheets with a cover page for assessment
• an electronic submission is also required in the format provided by your lecturer.

The submission must include the marking guide over the page.

Submission

Hand a paper plot and the electronic format to your lecturer at the end of class in Session 14.
Use CAD software template to produce 2-D drawings of residential buildings
Lecturer’s guide
30014

Use CAD software template to produce 2-D drawings of residential buildings

Assessment 2 – Produce drawings of a simple residential building

Name ___________________________  Date ____________

I have received feedback on this assessment.

Signature _________________________  Date ____________

Assessor’s initials
Use CAD software template to produce 2-D drawings of residential buildings
Lecturer's guide
Assessment 2 – Produce drawings of a simple residential building

Instructions

Overview

The following requirements for this assessment are dependent on the CAD software you are using and will be completed as directed by your lecturer. You will produce the following drawings based on a floor plan provided by your lecturer.

• Floor plan Scale 1:100
• Four elevations Scale 1:100
• Site plan Scale 1:200

The steps required to produce these drawings, depending on your software, may include the following.

1. Open and save the drawing template. Explore the settings, styles and objects available in the template.

2. Floor plan

   Draw the floor plan elements:

   2.1 Walls

   • Draw the external walls using the appropriate draw tools.
   • Draw the internal walls using the appropriate draw tools and/or using modify tools to use the previously drawn external walls.
   • Cut out parts of the external and internal walls to place openings (AutoCAD® only – other software will remove part of the wall when the opening is placed in the wall).

2.2 Windows and doors

   • Insert blocks/components for windows and doors in the external walls.
   • Insert blocks/components for doors and other opening types in the internal walls.
   • Use modify tools to modify sizes, orientation and positioning of windows and doors:
2.3 **Fittings and fixtures**
- Use wall lines (changing properties as required) for cupboard outlines, and modify tools as instructed to complete the cupboard shape.
- Insert blocks/components for fittings and fixtures in the kitchen, bathroom and laundry.
- Use modify tools to modify sizes, orientation and positioning of the fixtures and fittings.

2.4 **Roof**
- Use wall lines (changing properties as required) for the roof overhang.
- Use modify tools to complete the roof outline.
- Use draw tools to add the roof form as instructed by your lecturer.

2.5 **Services**
- Add service components including rainwater pipes, hose taps, a meter box, vents and manholes as instructed by your lecturer.

2.6 **Completion**
- Add hatch patterns to parts of your drawing as instructed by your lecturer.

Hatch patterns can be added for emphasis and to differentiate between floor areas. Typically, hatch patterns are applied to floor plans as fill patterns to wall thicknesses, and/or tile patterns to bathroom laundry and toilet floors.

2.7 **Dimensioning**
Fully dimension your floor plan.

2.8 **Text**
Fully note and add titles to your floor plan.

3. **Elevations**
Draw all elements of your elevations. You only need to draw the outline for one elevation, make copies of that outline, and modify the copies for the other elevations.
- Draw the external wall extents by projecting lines from the floor plan to the level lines previously drawn and trim as required.
- Draw the eave overhang and the roof outline.
- Copy the elevation nearby to use for the side elevation.
- Mirror the elevation nearby to use for the rear elevation.
3.1 **Complete the front elevation**

- Insert blocks for windows and doors and position them accurately by projecting lines from the floor plan to the elevation.
- Use modify tools to modify the sizes of the windows and doors.
- Add rainwater pipes and a meter box (if they appear on the front elevation).
- Increase the lineweight of the part of the elevation that is closest to you to give the impression of depth on the elevation.

3.2 **Rear elevation**

- Complete the rear elevation using the mirrored copy, as instructed by your lecturer, and following the instructions given for the front elevation.

3.3 **Side elevations**

- Using modify commands, resize the copied elevation to the correct width for the side elevation as instructed by you lecturer.
- Copy the elevation nearby to use for the other side elevation.
- Complete each side elevation as instructed by your lecturer and by following the instructions given for the front elevation.

3.4 **Dimensioning**

- Add dimensions to each elevation.

3.5 **Text**

Using the same text style and height as the floor plan, position the main title (view name and scale) below each elevation as instructed by your lecturer. Add general notes (with and without leaders) to each elevation. The notes can include the:

- floor and ceiling level
- wall material/finish
- roof material and pitch (or slope)
- eaves overhang width and type
- window type (indicated by a drawn symbol or annotation) and frame material.
4. **Site plan**

Draw the site plan as instructed by your lecturer, using the information below as a guide:

- Draw the boundaries and add a line for the verge (area of ground between the front boundary and the road).
- Add site features including trees, sewerage lines, etc.
- Add a north point.
- Draw the house outline on the site, ensuring the boundary clearances comply with the relevant codes.
- Increase the lineweight for the house outline for emphasis.
- Add a hatch pattern to the house area for emphasis.
- Indicate internal plumbing locations (sink, shower, toilet, etc) on the house area.

4.1 **Dimensioning**

Fully dimension your site plan:

- Select the dimension style.
- Select the dimension tool (linear dimension, an aligned dimension may be used if the boundary is on an angle).
- Pick the points that determine the extent of the dimensions (the boundary and the house wall).
- Pick a point to place the dimension line.

4.2 **Text**

Using the same text style and height as the floor plan and elevations, position the main title (view name and scale) below the site plan as instructed by your lecturer.

Add the street name, boundary lengths and name the building. Use a larger text height so that the titles stand out from general notes placed on the site plan.

Add general notes (with and without leaders) to your site plan to identify and describe the site and its features. Notes can be included for the:

- verge and kerb
- site features, for example trees, sewerage lines
- internal plumbing item names.
5. **Sheet layout**

Set up the sheet or layout as instructed by your lecturer, using the information below as a guide:

- Open the sheet or layout and edit the title block.
- Copy or duplicate the sheet or layout and edit the relevant parts of the title block (sheet number, view names on the sheet, scale, etc) on the copy.
- On Sheet 1, place the following views at the stated scale:
  - floor plan at scale 1:100
  - site plan at scale 1:200.
- Position both views for a balanced sheet appearance.
- On Sheet 2, place the four elevation views at scale 1:100.
- Position the four elevation views for a balanced sheet appearance as shown in the example drawing previously provided by your lecturer.

6. **Plotting**

To prepare for plotting, specify the following settings:

- the printer/plotter to be used
- the paper size, orientation and margins (or position of the plot area on the sheet)
- the area to plot
- the scale to plot

You will also need to edit pen assignments (AutoCAD® only) to control the colour and lineweight of components. When this has been done you then select OK to plot the drawing.

Your lecturer will give you more instructions as needed.

**Construction information**

Your lecturer will provide you with the construction information required to complete this set of drawings based on materials and methods used in the area.
Use CAD software template to produce 2-D drawings of residential buildings
Lecturer’s guide
## Annex E – Assessment guide

<table>
<thead>
<tr>
<th>Unit name</th>
<th>State ID (WA)</th>
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<tbody>
<tr>
<td>Use CAD software template to produce 2-D drawings of residential buildings</td>
<td>30014</td>
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</table>

<table>
<thead>
<tr>
<th>Assessment 1</th>
<th>Assessment 2</th>
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<tbody>
<tr>
<td><strong>Element 1</strong> Develop basic CAD skills</td>
<td></td>
</tr>
<tr>
<td>1.1 Understand common terminology relating to CAD</td>
<td>Q1–Q7</td>
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<td></td>
<td>Q1–Q6</td>
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<tr>
<td>1.2 Perform <em>basic drawing and modifying commands</em></td>
<td>Q4–Q7</td>
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<td></td>
<td>Q2–Q5</td>
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</tbody>
</table>

| **Element 2** Use an existing drawing template file                      |              |
| 2.1 Understand the purpose and features of a template                   | Q1, Q2       |
|                                                            | Q1           |
| 2.2 Identify, access and load a template                               | Q1, Q2       |
|                                                            | Q1           |
| 2.3 Utilise components contained in the template to draw and modify *simple objects* | Q4, Q5       |

| **Element 3** Produce simple residential building drawings              |              |
| 3.1 Clarify and confirm the *drawing requirements*                      | Q2–Q2.8, Q3–Q3.5, Q4–Q4.2, Q5, Q6 |
| 3.2 Produce the drawings for simple residential buildings               | Q2–Q2.6, Q3–Q3.3, Q4 |
| 3.3 Add notation that complies with common standards and drawing protocols to the drawings as required | Q2.8, Q3.5, Q4.2 |
| 3.4 Add dimensions, using appropriate scales in accordance with common standards and *drawing protocols* as required | Q2.7, Q3.4, Q4.2 |
### Element 4 Edit drawing components

| 4.1 Elements that are not required are deleted from an existing drawing | Q2–Q2.8, Q3–Q3.5, Q4–Q4.2 |
| 4.2 Editing commands are used to modify drawing elements and existing text | Q5, Q6, Q8 |

### Element 5 Plot CAD drawings

| 5.1 Edit linetype scale settings to produce an appropriate variety of linetypes in the final plot | Q9–Q11 | Q1, Q6 |
| 5.2 Set up viewports on the page layout to control the scale of the plot | Q9–Q11 | Q5 |
| 5.3 Edit plot settings to control lineweights in the drawing | Q9–Q11 | Q6 |

### Element 6 Save and backup files

| 6.1 Suitable file directories are created for the drawing project | Q1, Q2 | Q1 |
| 6.2 Drawing files are saved and backed up correctly to specified drives or directories | Q3 | Q1 |
| 6.3 Saved files are retrieved, renamed and edited as required | Q2 | Q1 |
## Essential knowledge

**Understanding of:**

<table>
<thead>
<tr>
<th>Drawing conventions and features, including:</th>
<th>Assessment 1</th>
<th>Assessment 2</th>
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</thead>
<tbody>
<tr>
<td>• scale</td>
<td>Q4–Q7</td>
<td>Q1–Q6</td>
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<tr>
<td>• key</td>
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<td>• symbols</td>
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<tr>
<td>• conventions</td>
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</table>

<table>
<thead>
<tr>
<th>Relevant building codes, standards and regulations of Australia</th>
<th>Q1–Q6</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Safe work methods</th>
<th>Q1–Q11</th>
<th>Q1–Q6</th>
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</thead>
</table>

## Essential skills

**Ability to:**

<table>
<thead>
<tr>
<th>Complete workplace documentation</th>
<th>Q1–Q6</th>
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<tr>
<th>Provide clear and direct communication using questions to identify and confirm requirements, share information, listen and understand</th>
<th>Q1–Q6</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Demonstrate basic design, drawing and drafting skills using CAD with a template already established</th>
<th>Q1–Q11</th>
<th>Q1–Q6</th>
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</thead>
</table>

<table>
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<tr>
<th>Demonstrate numeracy skills to apply measurements and make calculations</th>
<th>Q7, Q10</th>
<th>Q1–Q6</th>
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</thead>
</table>

## Critical aspects of evidence

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

<table>
<thead>
<tr>
<th>Understand and use a template</th>
<th>Q1–Q11</th>
<th>Q1–Q6</th>
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</table>

<table>
<thead>
<tr>
<th>Apply typical CAD software to drawings of simple residential buildings</th>
<th>Q1–Q6</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Produce clear and effective CAD drawings of simple residential buildings with appropriate notation and dimensioning</th>
<th>Q1–Q6</th>
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</table>

## Dimensions of competency

<table>
<thead>
<tr>
<th>Task skills</th>
<th>Q1–Q11</th>
<th>Q1–Q6</th>
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<table>
<thead>
<tr>
<th>Task management skills</th>
<th>Q4–Q11</th>
<th>Q1–Q6</th>
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</table>

<table>
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<tr>
<th>Task contingency skills</th>
<th>Q4–Q10</th>
<th>Q1–Q6</th>
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</thead>
</table>

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<thead>
<tr>
<th>Job role/Work environment skills</th>
<th>Q1–Q11</th>
<th>Q1–Q6</th>
</tr>
</thead>
</table>
Use CAD software template to produce 2-D drawings of residential buildings
Lecturer’s guide
Annex F – Marking guides
Use CAD software template to produce 2-D drawings of residential buildings
Lecturer’s guide
Assessment 1 – Draw, modify and annotate a drawing – Marking guide

Learner to complete

Assessor to complete

Name:  
Assessor:  
Date:  

1st submission date:  
Assessment: (circle)  
2nd submission due date:  

Competent  
Resubmit  

Due: Session 5

Instructions for learners

Tick the boxes on the left once you are happy with that aspect of your assessment and before you submit it.

Instructions for assessors

Place a cross in the boxes on the right only if the item is not acceptable or not competent.

Plot submitted on time ...........................................................................................................................

The requested tasks have been carried out :

- Correct template is used .................................................................................................
- Correct file name used .................................................................................................
- File saved in correct folder ........................................................................................
- Objects drawn ............................................................................................................
- Object properties modified ......................................................................................................
- Objects modified ..............................................................................................................
- Hatch applied ..............................................................................................................
- Text without leaders added .................................................................................................
- Text with leaders added .................................................................................................
- Text edited ..............................................................................................................
- Dimensions added ........................................................................................................

Drawing plotted correctly ........................................................................................................

Drawing complies with the required submission format ........................................................................

Appropriate cover page submitted ........................................................................................................

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Annex F
Note: Your assessor may provide specific notes on your submission as an alternative to completing the feedback section below.

Feedback: ...........................................................................................................................................
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Assessment successfully completed: 

Yes / No
# Assessment 2 – Produce drawings of a simple residential building – Marking guide

## Learner to complete

<table>
<thead>
<tr>
<th>Name:</th>
<th>Assessor:</th>
<th>Date:</th>
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## Assessor to complete

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<tr>
<th>1st submission date:</th>
<th>Assessment: (circle)</th>
<th>2nd submission due date:</th>
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<table>
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<tr>
<th>Competent</th>
<th>Resubmit</th>
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</table>

Due: Session 14

**Instructions for learners**

Tick the boxes on the left once you are happy with that aspect of your assessment and before you submit it.

**Instructions for assessors**

Place a cross in the boxes on the right only if the item is not acceptable or not competent.

---

- Plot submitted on time .................................................................
- File saved in correct folder using the correct file name ......................................
- Correct template is used...........................................................................
- The requested tasks have been carried out:

### Floor plan

- Walls, openings and roof drawn ...........................................................
- Fixtures and fittings drawn .................................................................
- Blocks inserted .......................................................................................
- Hatch applied and modified .................................................................
- Text without leaders added .................................................................
- Text with leaders added ........................................................................
- Text edited ............................................................................................
- Dimensions added ..................................................................................
Elevations

- Walls, openings and roof drawn .............................................................
- Blocks inserted ....................................................................................
- Text without leaders added ....................................................................
- Text with leaders added ........................................................................
- Text edited ............................................................................................
- Dimensions added ..................................................................................

Site plan

- Site boundaries and features drawn ......................................................
- Blocks inserted ....................................................................................
- Hatch applied and modified .................................................................
- Text without leaders added ....................................................................
- Text with leaders added ........................................................................
- Text edited correctly .............................................................................
- Dimensions added correctly .................................................................

Drawing plotted correctly ...........................................................................
Drawing complies with the required submission format ................................
Appropriate cover page submitted ............................................................

Note: Your assessor may provide specific notes on your submission as an alternative to completing the feedback section below.

Feedback: ..........................................................................................................................
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Assessment successfully completed:  Yes / No
Annex G – Assessment examples

Assessment 1 – Draw and modify

This is a sample set of instructions to give learners more detailed requirements to complete the draw and modify exercise.

1. Draw a LINE 50 long.
2. Draw connected LINES similar to the example.
3. Draw a RECTANGLE 40 wide × 20 deep.
4. Draw a closed POLYLINE similar in shape to the one you drew in Section 1.
5. Draw a diagonal line.
6. Draw two CIRCLES at the MIDPOINT of the line – one with a 10 radius and one with a 15 radius.
7. Draw a POLYGON with six sides (a hexagon) using the EDGE option, with an edge length of 20.
8. Draw an ARC using the CENTRE, START, END option and a 30 radius.
9. OFFSET the line down six times at a spacing of 7. Change the LINETYPES from the top down to the following.
   A. Continuous
   B. Centre
   C. Centre 10
   D. Face brick
   E. Hidden 1
   F. Hidden 2
   G. Roof
10. COPY the lines from Section 7 to Section 8 (use the corner of the square as the base point). Change all the copied linetypes to ‘Continuous’, and then change the LINEWEIGHT and COLOUR from the top down to the following.
    A. 0.09 Colour 9
    B. 0.13 Colour 8
    C. 0.18 Red
    D. 0.25 Yellow
    E. 0.35 Green
    F. 0.5 Cyan
    G. 0.7 Magenta
11. COPY the hexagon from Section 5. SCALE the hexagon to half its size (Scale Factor = 0.5). MOVE the hexagon from its MIDPOINT to the middle of the section using the MID BETWEEN 2 POINTS option.

12. COPY the rectangle from Section 2. Use GRIPS to increase its total depth to 30. ROTATE the rectangle 45°. Then MOVE towards the middle of the section.

13. COPY the POLYLINE from Section 3. Use the ROTATE tool to ROTATE AND COPY the POLYLINE 90°. Then MOVE towards the middle of the section if required.

14. COPY the POLYLINE from Section 3. MIRROR the POLYLINE using horizontal mirror line. Keep the original POLYLINE. Then MOVE towards the middle of the section if required.

15. MOVE the ENDPT of the Magenta line to the ENDPT of the Green line as shown. MOVE the ENDPT of the Cyan line to the MIDPT of the Red line as shown.

16. Draw a horizontal and vertical LINE in the circle using the QUADRANT OSNAP.

17. Draw a 30 long horizontal LINE from the INTERSECTION of the lines as shown. Draw a second line from the ENDPT of the first line drawn, PERPENDICULAR to the line as shown.

18. EXTEND the horizontal lines to the vertical line.

19. TRIM the horizontal lines using the vertical lines as cutting edges.

20. HATCH the circles using the ANSI31 pattern as follows:
   A. Top left – hatch scale = 1
   B. Top tight – hatch scale = 2
   C. Bottom left – hatch scale = 0.5
   D. Bottom right – hatch scale = 1 and angle = 90°

21. Apply two different HATCH patterns to the top circles (Note: the scale of the patterns will vary). COPY the patterns to the bottom circles (consider the appropriate OSNAP to use). MODIFY the patterns in the bottom circles (consider scale, rotation).
22. Using SINGLE LINE TEXT, create four lines of text as shown, using the following styles (Hint: use INSERT OSNAP to align second and third line with the first):
   A. Notes – 2 mm
   B. Notes – 3.5 mm
   C. Notes – 5 mm (Use ENTER key after the word TEXT to create a second line)
   D. Notes – 2 mm at an angle of 45˚.

23. Using MULTILINE TEXT create two paragraphs of text as shown using:
   A. Notes – 2 mm, at an angle of 0˚. Insert the degree symbol.
   B. Notes – 3.5 mm. Include the formatting options.

24. EDIT the two SINGLE LINE TEXT samples as noted. EDIT the MULTILINE TEXT sample as noted.

25. Add a MULTILEADER using LEADER-NOTES-2 MM style as shown. And then:
   A. COPY the above and EDIT the text and MODIFY the leader length and angle
   B. ADD two leaders to the next example
   C. ALIGN the last two MULTILEADERS using the first line to align the second line (they will appear left justified).

26. DIMENSION the shape using DIMS-NOTES-2 MM style and placing the dimension 5 mm from the shape. Use:
   A. the LINEAR option for the top and right side
   B. the Linear and CONTINUOUS options for the bottom and left side.
## Template example

<table>
<thead>
<tr>
<th>1. Line</th>
<th>2. Rectangle</th>
<th>3. POLYLINE</th>
<th>4. LINE &amp; CIRCLES</th>
<th>5. POLYGON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. OFFSET LINE TYPES</td>
<td>3. MOVE OSNAPS</td>
<td>4. LINE OSNAPS</td>
<td>5. SCALE &amp; OSNAPS</td>
<td>6. STRETCH &amp; ROTATE</td>
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<tr>
<td>7. LINE</td>
<td>8. LINEWEIGHT, COLOUR</td>
<td>9. SCALE</td>
<td>10. STRETCH &amp; ROTATE</td>
<td>11. ROTATE &amp; COPY</td>
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<tr>
<td>17. DIMENSION</td>
<td>18. MULTILEADERS</td>
<td>19. MULTILEADERS</td>
<td>20. MULTILEADERS</td>
<td>21. MULTILINE TEXT</td>
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<tr>
<td>22. TEXT EDIT</td>
<td>23. CHANGE HEIGHT TO 2MM</td>
<td>24. EDIT SPELLING ERROR</td>
<td>25. MOVE TEXT, LEADERS</td>
<td>26. VERTICAL TEXT</td>
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<tr>
<td>27. MULTILINE TEXT</td>
<td>28. SINGLE LINE TEXT</td>
<td>29. SINGLE LINE TEXT</td>
<td>30. SINGLE LINE TEXT</td>
<td>31. SINGLE LINE TEXT</td>
</tr>
</tbody>
</table>

**Image:** Template example
Assessment 1 example – completed using instructions
Assessment 2 – example plans

FLOOR PLAN
SCALE 1:100
Use CAD software template to produce 2-D drawings of residential buildings

SOUTH ELEVATION
SCALE 1:100

600mm BOXED EAVES

EAST ELEVATION
SCALE 1:100

600mm BOXED EAVES
ALUM. FRAMES
FACE BRICKWORK

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USE CAD SOFTWARE TEMPLATE TO PRODUCE 2-D DRAWINGS OF RESIDENTIAL BUILDINGS
CERTIFICATE II IN BUILDING AND CONSTRUCTION (PATHWAY – PARAPROFESSIONAL)
30014

LECTURER’S GUIDE

DESCRIPTION
This lecturer’s guide has been written to support the delivery and assessment of the unit 30014 Use CAD software template to produce 2-D drawings of residential buildings from Certificate II in Building and Construction (Pathway – Paraprofessional). The course, and the learner’s guide, focus on the skills and knowledge required as a paraprofessional in the residential building industry.

The lecturer’s guide provides you with the following resources and tools:

• unit delivery strategy
• unit delivery plan
• assessment plan
• assessment instruments and marking keys
• assessment matrix.

Support is also provided through highlighting of any pre-delivery preparation required, and of any specific requirements for each delivery session and assessment.

EDITION
Edition 1, 2012
Unit and course codes updated 2014

COURSE/QUALIFICATION
Certificate II in Building and Construction (Pathway – Paraprofessional)

UNIT
30014 Use CAD software template to produce 2-D drawings of residential buildings

RELATED PRODUCTS
This resource is one of a series that covers all 12 units of the Certificate II in Building and Construction (Pathway – Paraprofessional) qualification. Please refer to our product catalogue for more information.