



ASSESSMENT WORKBOOK



CPCCBBC4014

Prepare simple building sketches and drawings

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Instructions

The assessments in this workbook are divided into three categories: Knowledge Assessment and Practical Assessment.

The **Knowledge Assessment** is a set of general and workplace questions testing your knowledge and understanding of the general theory behind the unit.

You must answer all Knowledge Assessment Questions using your own words. However, you may refer to your Learner Guide and other relevant resources and learning materials to complete this assessment.

Some questions cover processes you would likely encounter in a workplace. Ideally, you should be able to answer these questions based on the processes that are currently in place in your workplace. However, if you do not currently have access to a workplace, then answer the questions based on processes that should be implemented in a typical workplace setting.

The **Practical Assessment** is made up of the **Practical Assignment** and **Workplace Assessment**. This assessment tests your practical skills with respect to the requirements of the unit of competency relevant in this workbook.

The Practical Assessment requires you to complete and submit workplace documents and other documentation relevant to the unit of competency.

The evidence you submit must be your own work except where due reference is made and where you are required to submit supplementary workplace documents such as policies and procedures.

When completing the assessments included in this workbook:

1. Read the instructions provided in each task carefully before attempting to complete the task. The instructions will guide you on how to answer the question or complete the task satisfactorily.
2. Follow the steps provided in each task.
 - If the question instructs you to describe, provide a description as your response. If the question instructs you to list, provide a list as your response.
 - Where there is a number of required responses, provide the required number of responses. For example, if you are asked to list three responses, provide three responses.
3. Ensure that all your submissions for this assessment indicate your first and last name and that these submissions have been named according to the file naming convention prescribed in each task.

Competency-Based Assessments

Definition of Competency

Assessment in this context can be defined as the fair, valid, reliable, and flexible gathering and recording of evidence to support the judgement on whether competency has been achieved. Skills and knowledge (developed in a structured learning situation, at work, or in some other context) are assessed against national standards of competence required by industry, rather than compared with the skills and knowledge of other candidates.

The features of a competency-based assessment system are:

- It is focused on what candidates can do and whether it meets the criteria specified by the industry as competency standards.
- Assessment should mirror the environment the candidate will encounter in the workplace.
- Assessment criteria should be clearly stated to the candidate at the beginning of the learning process.
- Assessment should be holistic. That is, it aims to assess as many elements and/or units of competency as is feasible at one time.
- In competency assessment, a candidate receives one of only two outcomes – ‘competent’ or ‘not yet competent.’
- The basis of assessment is in applying knowledge for some purpose. In a competency system, knowledge for the sake of knowledge is seen to be ineffectual unless it assists a person in performing a task to the level required in the workplace.
- The emphasis in assessment is on assessable outcomes that are clearly stated for the trainer and candidate. Assessable outcomes are tied to the relevant industry competency standards where these exist. Where such competencies do not exist, the outcomes are based upon those identified in a training needs analysis.

Assessing Nationally-Recognised Training

Developing and conducting assessment, in an Australian Vocational Education and Training (VET) context, is founded on the Principles of Assessment and the Rules of Evidence:

Principles of Assessment

1. Assessment must be valid

- Assessment must include the full range of skills and knowledge needed to demonstrate competency.
- Assessment must include the combination of knowledge and skills with their practical application.
- Assessment, where possible, must include judgements based on evidence drawn from a number of occasions and across a number of contexts.

2. Assessment must be reliable

- Assessment must be reliable and must be regularly reviewed to ensure that assessors are making decisions in a consistent manner.
- Assessors must be trained in national competency standards for assessors to ensure reliability.

3. Assessment must be flexible

- Assessment, where possible, must cover both the on- and off-the-job components of training within a course.
- Assessment must provide for the recognition of knowledge, skills, and attitudes regardless of how they have been acquired.
- Assessment must be made accessible to candidates through a variety of delivery modes, so they can proceed through modularised training packages to gain competencies.
- Assessment must be mutually developed and agreed upon between assessor and the assessed.
- Assessment must be able to be challenged. Appropriate mechanisms must be made for reassessment as a result of challenge.

4. Assessment must be fair

- Assessment process must consider the individual needs of the candidate.
- Assessment must provide for reasonable adjustments, where appropriate, to consider the individual candidate's needs.

(Source: Standards for RTOs 2015, Clauses 1.8 – 1.12)

Rules of Evidence

When collecting evidence, certain rules apply to that evidence. All evidence must be valid, sufficient, authentic, and current:

1. Valid

Evidence gathered should meet the requirements of the unit of competency. This evidence should match, or at least reflect, the type of performance that is to be assessed, whether it covers knowledge, skills, or attitudes.

2. Sufficient

This rule relates to the amount of evidence gathered. Enough evidence must be gathered to satisfy the requirements that the candidate be competent in all aspects of the unit of competency.

3. Authentic

When evidence is gathered, the assessor must be satisfied that evidence is the candidate's own work.

4. Current

This relates to the recency of the evidence and whether the evidence relates to current abilities.

(Source: Training in Australia by M Tovey, D Lawlor)

Dimensions of Competency

The national concept of competency includes all aspects of work performance and not only narrow task skills. The four dimensions of competency are:

1. Task skills
2. Task management skills
3. Contingency management skills
4. Job or role environment skills

Reasonable Adjustment

'Reasonable adjustment' in VET is the term applied to modifying the learning environment or making changes to the training delivered to assist a candidate with a disability. A reasonable adjustment can be as simple as changing classrooms to be closer to amenities or installing a particular type of software on a computer for a person with vision impairment.

Why make a reasonable adjustment?

We make reasonable adjustments in VET to make sure that candidates with a disability have:

- The same learning opportunities as candidates without a disability, and
- The same opportunity to perform and complete assessments as those without a disability.

Reasonable adjustment applied to participation in teaching, learning, and assessment activities can include:

- Customising resources and assessment activities within the training package or accredited course
- Modifying the presentation medium
- Learner support
- Use of assistive/adaptive technologies
- Making information accessible both before enrolment and during the course
- Monitoring the adjustments to ensure candidate needs continue to be met

Assistive/Adaptive Technologies

Assistive/Adaptive technology means 'software or hardware that has been specifically designed to assist people with disabilities in carrying out daily activities' (World Wide Web Consortium - W3C). It includes screen readers, magnifiers, voice recognition software, alternative keyboards, devices for grasping, visual alert systems, digital note-takers.

(Adapted Reasonable Adjustment in teaching, learning and assessment for learners with a disability - November 2010 - Prepared by - Queensland VET Development Centre)

IMPORTANT:

Reasonable adjustment made for collecting candidate assessment evidence must not impact on the standard expected by the workplace, as expressed by the relevant unit(s) of competency. For example, if the assessment were gathering evidence of the candidate's competency in writing, allowing the candidate to complete the assessment verbally would not be a valid assessment method. The method of assessment used by any reasonable adjustment must still meet the competency requirements.

The Unit of Competency

The units of competency specify the standards of performance required in the workplace.

This assessment addresses the following unit of competency:

CPCCBC4014 - Prepare simple building sketches and drawings (Release 1)

1. Prepare to make sketches and drawings
2. Create sketches and drawings
3. Notate and process drawings

A complete copy of the above unit of competency can be downloaded from the TGA website:

<https://training.gov.au/Training/Details/CPCCBC4014>

The Context of Assessment

To complete the assessments in this workbook, students need to have access to their learning materials and the Internet. The Knowledge Assessment may be completed wholly at the candidate's home or chosen place of study. The Practical Assessment must be completed in a workplace or a simulated environment.

Assessment Methods

This workbook uses the following assessment method/s:

1. Knowledge Assessment

A set of general and workplace questions testing the candidate's general knowledge and understanding of the general theory behind the unit.

2. Practical Assignment

A series of written practical tests assessing the candidate's practical knowledge and understanding of the unit of competency.

3. Workplace Assessment

A set of tasks or activities completed according to set instructions and guidelines to meet the requirements of the relevant unit. These tasks and activities require you to have access to a workplace or a similar environment.

Resources Required for Assessment

The Training Organisation to provide/organise candidate with access to:

- Assessor to supervise and observe candidate as they complete assessments, where required.
- Workplace, or a similar environment, where the candidate can complete the assessments, and that will allow them access to:
 - Building and construction project
 - Workplace supervisor
 - Construction plans and specifications
 - Current building and construction codes and standards
 - The NCC
 - Hand drawing equipment
 - Workplace procedures and other quality documentation required to undertake the performance criteria and assessment requirements
 - Computers, applications, and software to access drawings and other relevant information.

The candidate will need access to:

- Computer with Internet, email access, and a working web browser
- Installed software: MS Word, Adobe Acrobat Reader

Assessment Workbook Cover Sheet

To the candidate: Print this cover sheet and complete it by filling in all the required information and signing in the space provided. Your signature must be handwritten. Scan the completed cover sheet and submit it along with your evidence submissions. Use the filename: **CPCCBC4014 Cover Sheet**

Workbook	CPCCBC4014
Title	Prepare simple building sketches and drawings (Release 1)
First and Last Name	Noreen Abu-Obeid
Phone	0415818248
Email	nabuobeid@gmail.com

Please read the Candidate Declaration below and if you agree to the terms of the declaration, sign and indicate the date in the spaces provided.

By submitting this work, I declare that:

- I have been advised of the assessment requirements, have been made aware of my rights and responsibilities as an assessment candidate, and choose to be assessed at this time.
- I am aware that there is a limit to the number of submissions that I can make for each assessment, and I am submitting all documents required to complete this Assessment Workbook.
- I have organised and named the files I am submitting according to the instructions provided. I am aware that my assessor will not assess work that cannot be identified and may request the work be resubmitted according to the correct process.
- This work is my own and contains no material written by another person except where due reference is made. I am aware that a false declaration may lead to the withdrawal of qualification or statement of attainment.
- I am aware that there is a policy of checking the validity of qualifications that I submit as evidence as well as the qualifications/evidence of parties who verify my performance or observable skills. I give my consent to contact these parties for verification purposes.

Name: Noreen Abu-Obeid

Signature:



Date signed: 25/11/2022

Knowledge Assessment

1. The following are types of building and construction plans.
 - i. Presentation drawings
 - ii. Isometric drawings
 - iii. Orthographic drawings
 - iv. Perspective drawings

Describe each plan and explain what they are used for.

Types of building and construction plans	Description	Use
i. Presentation drawings	These are diagrams that have a basic presentation and include tones to represent different materials	These are used to explain its features and what it would appear to look like. They describe the design simply and are shown to clients during the design process.
ii. Isometric drawings	These are 3D drawings set out using 30 degree angles and the image produced is not distorted.	Used to provide a 3D presentation of a building or design on a 2D surface

Types of building and construction plans	Description	Use
iii. Orthographic drawings	This represents the 2D drawing of a top view, front view or side view, using parallel lines to represent the object in that drawing on the particular view	Used to show an object from every angle to help the builder plan the construction. You can tell what is on the side or top view based on the drawing.
iv. Perspective drawings	These are drawings as perceived by the eye and represent the flat surface of the building	Used to depict depth and accurately represent a 3D object onto a 2D plane.

2. Explain what each drawing convention listed below is.

Drawing conventions	Explanation
i. Sheet layout	The entire layout and property with all site elements that will be considered in the construction of the building or project, therefore providing the entire scope of work involved
ii. Title block	This refers to the part on the drawing sheet which provides information about the drawing and is usually at the bottom right hand corner. It contains the project title, client name and site address, designer name, date of drawing, any amendments made, the scale used and the versions as applicable
iii. Line types	These describe the type of the line used in the drawings and would consist of a dotted, dashed, long dashed, or simple be a straight solid line, thick or thin to represent different parts/areas of the drawing. These represent the appearance of objects or where the object sits in the drawing (Infront or behind an object) etc, to give a better understanding of the drawing image. Solid lines indicate real objects while dotted lines indicate hidden objects
iv. Symbols	These are shapes or signs or letter in a drawing that represent the item, object, material or equipment on the drawing, that is easily understood by the construction workers. They represent design ideas conveyed by architects or engineers.
v. Dimensions	These are measurements in units of the length, width, height, distance, area, volume and are shown in a drawing. These help to calculate the dimensions required in construction without having to measure it yourself. These are usually expressed in mm or m (metric)
vi. Dimension lines	These are dark, light, thick or thin lines with arrowheads at the end or slash to show start and end points of measurement and indicate direction and extent of a dimension

vii. Abbreviations	These are short representation of commonly used construction words or terminologies that are shortened in a drawing or plan and easily understood by construction workers eg SA for smoke alarm, WC for water closet
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3. Identify five key features of a construction plan.

i. Site plan
ii. Floor plan
iii. Elevations
iv. Sections
v. Details

4. Answer the following questions about CAD drawings.

i. What does CAD stand for? Computer-Aided Design
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ii. What are CAD drawings?

These are drawings made by a computer and can be 2D or 3D models created and used by the construction personnel to create accurate drawings, plans of the building. They are easier to view and amend as compared to blueprints and can easily be shared among the construction personnel.

iii. How is CAD used in building and construction?

It shows representation in different views and angles and easily amended or modified. These are 2D or 3D images used by construction engineers, architects, managers to create precise drawings of the building.

5. Answer the following questions about technical drawing by hand or manual drafting.

i. What is manual drafting?

Manual drafting is when you produce drawings by hand using pen and paper. This is when you put your ideas to paper. With manual drawings, one can erase and redraw the parts that need to be fixed and this can sometimes disturb the clarity of the paper/drawing boards and drawings.

- ii. Identify three advantages of manual drafting.
- a. Low cost
 - b. Creative and allows you to create a drawing manually using the tools and drawing boards
 - c. Quick to put ideas to paper/drawing board and to incorporate ideas into a drawing

- iii. Identify three tools used in manual drafting.
- a. Specialised pencils
 - b. Ruler
 - c. Sketch pads/paper

6. Specify your state/territory, and:

- i. Identify three building and construction regulations that apply in your state/territory.
- ii. Summarise the regulatory requirements relevant to building drawings and sketches under each regulation you identified.
- iii. Provide a URL where you sourced your responses.

State/territory	QLD
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Regulations	Regulatory requirements	URL/Source
i. Building Act 1975	<i>73 Obligation to make current drawing available for inspection</i> The applicant for a building development approval must ensure 1 legible set of the current drawings for the building is, while the building work is being carried out, available for inspection by anyone who, under an Act, is entitled to inspect the relevant building site.	http://classic.austlii.edu.au/au/legis/qld/consol_act/ba197591/s73.html

ii. Queensland Building and Construction Commission Act 1991	Before entering into the contract, the building contractor must obtain the foundations data that is appropriate for the building site, having regard to the following (a) the Building Code of Australia; (b) the need for a drainage plan; (c) the need for engineer's drawings and computations; (d) the need for information on the fall of the land at the building site. Maximum penalty—100 penalty units.	https://www.legislation.qld.gov.au/view/html/inforce/current/act-1991-098?query=((Repealed%3DN%20AND%20PrintType%3D%22act.reprint%22%20AND%20PitValid%3D%40pointInTime(20221018000000))%20OR%20(Repealed%3DN%20AND%20PrintType%3D%22reprint%22%20AND%20PitValid%3D%40pointInTime(20221018000000))%20AND%20Content%3D(%22building%22%20AND%20%22drawings%22)&q-collection%5B%5D=inforceActs&q-collection%5B%5D=inforceSLs&q-documentTitle=&q-prefixCcl=&q-searchfor=building%20drawings&q-searchin=Content&q-searchusing=allwords&q-year=&q-no=&q-point-in-time=18%2F10%2F2022&q-searchform=basic#sch.1B-sec.31
iii. Building Regulation 2006	Information to be given by the State—Act, s 255 For section 255(2) of the Act, the following information is prescribed— 1. (a) a 1:100 scale drawing of the building or structure showing floor plans and elevations, unless the Minister responsible for the building work mentioned in section 255 of the Act considers it	https://www.legislation.qld.gov.au/view/pdf/inforce/current/sl-2021-0126

	would not be in the public interest to give the information; and 2. (b) a site plan of a scale enabling the local government to provide water supply, sewerage and stormwater drainage for the land on which the building work is to be carried out.	
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7. Listed below are examples of Australian Standards that apply to building drawings and sketches. Indicate the title for each standard and explain each.

Standards	Title and explanation
i. AS 1100.101-1992	Title: Technical drawing, Part 101: General principles Explanation: This standard sets out the basic principles of technical drawing and its practices. It explains and covers basic abbreviations, materials, dimensions, sizes and layouts of the drawing sheets, scales used. It provides the standard for technical drawings and specifications to use and these assist the construction personnel in creating good sketches and drawings
ii. AS ISO 128.20-2005	Title: Technical drawings – General Principles of presentation Explanation: This standard is about the general rules for the presentation of lines in all kinds of documentations and includes those created by CAD or applications showing lines on construction drawings.

8. The Building Code of Australia is divided into three volumes. Briefly describe the scope of each volume.

Volume	Description
i. Volume One	Applies to and contains the technical design and construction requirements for Class 2 to 9 (multi-residential, commercial, industrial and public) buildings and structures, including access requirements for people with disability in class 1b and 10a buildings and 10b structures like swimming pools.
ii. Volume Two	Applies to and contains the technical design and construction requirements for Class 1 (residential) and 10 (non habitable) buildings and structures, other than that in volume 1 above, and 10c bushfire shelters
iii. Volume Three	Applies to technical requirements for the design and construction for plumbing and drainage systems in new and existing buildings for all classes of buildings. It also applies to sites where water services are constructed independent of buildings.

9. Explain how the Building Code of Australia is relevant to the preparation of building drawings and sketches.

It represents the technical design and construction provisions, rules, and codes for buildings. It sets the minimum required level for safety, health, amenity, accessibility, and sustainability of buildings. It is used by architects, builders, plumbers, surveyors etc in their drawings and its reflection on the drawings in regard to the design and technical requirements to be followed and adhered to and assists in the understanding of how the technical requirements of these codes should be applied to in any given situation or part(s) of the drawings. It provides the required rules and instruction to comply with the building code and standards

10. Answer the following questions about NCC requirements.

- i. Explain what the General Requirements of buildings are.

These contain the rules and instructions for using and complying with NCC and guide us in understanding how the technical requirements should be applied in any given situation.

These are areas that cover the basic use of abbreviations, materials, layout, interpretation, reference documents, acceptance of design and construction, documentation and classification of buildings within the NCC. Those that meet a basic functional requirement in terms of durability, moisture or damp prevention, security, sound insulation, strength and stability.

ii. Explain what the Performance Requirements of buildings are.

These are the minimum level of performance that buildings and building elements must meet, including plumbing and drainage installations. These are areas whereby there is no obligation to adopt any particular material, component, design factor or construction method and providing various compliance pathways to select from using evidence of suitability, verification method, expert judgement or comparison with the Deemed-to-satisfy provisions

iii. Explain the relationship between a building's Performance Requirements and compliance options (e.g. performance solutions, deemed-to-satisfy solutions).

Compliance is satisfied when it is achieved by complying with the NCC governing requirements and the performance requirements including performance solutions, deemed-to-satisfy solution or both through the assessment methods including evidence of suitability of use of material, product, plumbing product, expert judgement and provisions that satisfy these performance requirements. These can be met through preparing a performance-based design brief with stakeholders or carry out analysis and preparation of final report or inspection report including the findings of the above.

11. Answer the following questions about building information modelling (BIM).

i. What is building information and modelling (BIM)?

It is used for creation and management of construction drawings and is a 3D based process that uses tools to create these digital representations of the building.

ii. What is BIM used for?

It is used to design and document building and infrastructure designs and analysis to review design options and generate more visualisations that assist the stakeholders to better understand the project. This helps the construction industry workers/personnel to collaborate during a building projects lifecycle and allows them to be able to view different areas of the project, therefore allowing them to make any changes to resolve any conflicts that they may have noted before the construction commences.

12. Listed below are examples of building and construction methods. Explain what each is.

Methods	Explanation
i. Solid brick construction	This is masonry construction that has layers or wythes of bricks, with header bricks, to hold them together.
ii. Brick veneer construction	This is a construction method where a wooden/steel frame is covered with an exterior layer of bricks
iii. Framing	This is a construction method of fitting together the separate structural pieces to give a full structure support or shape to the building
iv. Post and beam construction	This is a construction method whereby heavy timber posts/beams are used and are connected mainly using plates or bolts. These are stronger elements used in the construction.

13. Define the construction terminology provided.

Term	Definition
i. Admixture (n.)	These are substances added during concrete mixing to enhance the cement property in terms of its workability, durability, and strength
ii. Brace (n.)	This is an item used in strengthening structures eg in wind or pressure areas and stabilizes and strengthens the areas of load distribution
iii. Masonry (n.)	These are brick put together to make walls, paths etc
iv. Nogging (n.)	This is a strut used to give rigidity to a framework eg) fixed between joists or studs to strengthen the framework
v. Pilot hole (n.)	This is a small hole drilled into a piece of material and helps to guide a larger drill with ease. These are also pre-drilled holes that allow the screw to go into the eg) wood easily without causing any damage or cracking.

Term	Definition
vi. Plumb (adj.)	This means that a line or feature is represented perfectly straight and vertical
vii. Sanding (v.)	This is the use of sandpapers or abrasive papers in order to smoothen or remove layers from surfaces. This can also be done in order to roughen surfaces so other materials can adhere to them more effectively.
viii. Scaffolding (n.)	This is a temporary structure that is erected during construction in order to support access or working platforms used by the construction workers in a safe manner
ix. Strip flooring (n.)	These are strips of wood usually made with a tongue-and-groove along the sides to join and fit pieces up together to form a floor
x. Tamp (v.)	These are used to compact or flatten material in

Practical Assessment

Candidate Instructions

The Practical Assessment is a set of tasks that must be completed in a workplace, or in an environment with conditions similar to that of a real workplace.

This assessment will help you demonstrate skill requirements relevant to preparing simple building sketches and drawings.

The Practical Assessment includes the following:

- 1. Practical Assignment**

A series of written practical tests assessing the candidate's practical knowledge and understanding of the unit of competency.

- 2. Workplace Assessment**

A set of tasks or activities completed according to set instructions and guidelines to meet the requirements of the relevant unit. These tasks and activities require you to have access to a workplace or a similar environment.

Preliminary Assessment Information

The tasks in this practical assessment must be completed in a workplace (or a similar environment) and in the context of a building and construction project which you are currently a part of.

E.g. You are a builder, a site manager in training, foreperson, or an apprentice in this project, etc.

Please approach your Training Provider for further assistance on accessing the resources required for this assessment.

Before starting the practical assessment, record the following information for your assessor's reference.

When completing the tasks in this practical assessment ensure that your responses and performance must align with the information you have provided below.

For example (but not limited to):

- If the task asks you to refer to building and construction legislation and regulatory requirements, refer to the requirements that apply to the state/territory where your nominated building and construction project is undertaken.
- If the task requires you to follow organisational policies and procedures, refer to the policies and procedures in your nominated organisation/workplace.

Work role/title	ADMINISTRATION
Organisation/workplace	Knights construction & Building inspections
Building and construction project	Knights construction project No 18
Project overview	New build
Building classification	1a
Project site address	Jindalee street
State/territory where this project is being undertaken	QLD

Practical Assignment

Overview

The goal of this assessment is to assess your practical knowledge of:

- workplace processes
- workplace safety and
- environmental requirements.

This assessment has three tasks:

- Task 1 – Workplace processes
- Task 2 – Workplace safety requirements
- Task3 – Environmental requirements

This task must be completed in the context of the workplace you have nominated in the “Preliminary Assessment Information” section.

You are required to:

- Access and review workplace processes that are relevant to preparing simple building sketches and drawings.
- Access and review workplace safety requirements that are relevant to preparing simple building sketches and drawings.
- Access and review environmental requirements that are relevant to preparing simple building sketches and drawings.
- Review the task instructions included in this Practical Assignment.
- Record your response as required in the instructions.

Resources required for assessment

- Workplace processes for preparing simple building sketches and drawings.
- Workplace safety requirements
- Environmental requirements

1. Access and review your workplace's processes for preparing building construction plans and answer the following questions.

i. What types of building construction documents does your workplace produce?

- Drawing/Plans from Architect/Engineer/Draftsman
- Specifications
- Quotations with Scope of Works
- Contracts including commencement dates
- Copy of Consumer Building Guide
- Specification document

ii. Summarise below your workplace's processes for creating building construction plans, including drawings and sketches.

Drawings and sketches are made on site during a site visit, using pen and paper, entering details, features and specifications in terms of dimensions, outlining the construction or installation processes as notes. During the planning stage, the drawings and sketches should show that the design, materials, or construction meets the relevant Performance requirement or Deemed-to-Satisfy provisions).

At this point brief descriptions will be entered, and methods of construction will be identified, based on the preliminary ideas regarding the project. Other plan types are outsourced to the relevant areas of construction accordingly.

Despite this, the currency of plans is incorporated and checked before we proceed with construction and any amendments or rectifications are made prior.

iii. What types of software does your workplace use to create building construction plans?

We are a small business currently and only do the pen and paper sketches and drawings using simple apps on our computer and i-pads. For other complex drawings, we interact and co-ordinate externally with the Architecture, designer, engineer for plans

2. Access and review your workplace's safety requirements relevant to safe design in planning building and construction and answer the following questions.

i. Explain how your workplace meets safe design at the concept development phase of a structure or building.

It helps to control and minimize risks to health and safety throughout of the structure or building being designed including its practicability, aesthetics and looks, functionality and materials used. The duty includes carrying out testing and analysis and being able to provide specific information about the building or structure to the workers involved. It helps us to identify hazards, assess the risk, eliminate the risk and control the risk and review these control measures therefore making it safe and healthy.

Being able to foresee hazards that may occur at any stage of the structure and building phases, whether in built, uses, repair, maintaining, modifying, demolishing, disposing, recycling etc, helps to control and minimize any risks within this journey, keeping in mind the legislations regulations and codes of practice requirements

ii. Explain your workplace's processes for achieving a safe design.

- Identifying hazards and outlining its risk management outlining how it will be eliminated or minimized through your safety in design checklist
- Testing, analysing, or examining in accordance with the WHS Act
- Discussing the design options and how it could influence risks and finalize design accordingly
- Recording of identified hazards, action taken, control measures and implementation of solutions as per standards and codes of practice
- Document a safety report as per WHS Regulation, Risk register, safety data sheets, manuals and procedures
- Consulting with the workers and relevant stakeholders
- Communicating the potential risks and solutions
- Updating your documentation, policy and procedures accordingly, as required

iii. What performance requirements must the building design meet in relation to movement to and within a building?

- Ensure you provide adequate clearance between the structure and eg overhead electric lines by either burying, disconnecting or re-routing the cables before construction begins
- Ensure safe access and exits
- Reduce or limit the size of prefabricated wall panels where site access is restricted
- Design separate traffic areas for vehicles and pedestrians and loading bays
- Using non-slip material on floors or wet areas
- Providing safe outdoor space for large machinery and equipment's and watch for confined spaces
- Provide adequate lighting
- Noise control
- Design adequate access in and out of the building and seating as required
- Ensure floor loadings are designed to carry the appropriate required weights
- Site security
- Access to amenities and facilities

iv. What performance requirements must the building design meet in relation to fall prevention barriers?

- By designing parts that can be prefabricated off-site or on the ground in order to avoid assembling or erecting these structures at heights in order to reduce worker exposure to falls from heights or struck by falling objects
- Notifying management of any working at heights risk that you become aware of
- By designing parapets to a height that complies with guardrail requirements
- Window heights and cleaning
- By using continual support beams by extra bolting or adding a beam seat as this helps to eliminate falls due to vibrations, misalignment or any unexpected construction loads
- By constructing eg stairways to help prevent falls that are more commonly seen with temporary stairs or scaffolding

- Reduce space between roof trusses and battens to reduce risk of internal falls during roof construction and safe roofing materials
- By designing and positioning permanent anchorage and hoisting points into structures at heights
- Ensuring that workers who are required to work at heights have been provided with the required training and induction to do so safely, in particular regarding the use of fall prevention and arrest equipment, and personal protective equipment.

3. List all the local and or state/territory environmental requirements that your workplace must meet to conduct building and construction work.

i. Environmental Protection Act 1994

ii. Waste Reduction and Recycling Act 2011

iii. Queensland Heritage Act 1992

iv. National Environment Protection Council (Queensland) Act 1994

v. Nature Conservation Act 1992

Workplace Assessment

Overview

The goal of this assessment is to assess your practical knowledge and skills in:

- Preparing to make sketches and drawings.
- Creating simple sketches and drawings
- Notating and processing drawings.

This workplace assessment is made up of four tasks:

- Task 1 – Confirm construction plan complies with building and construction regulations, standards, and codes.

- Task 2 – Prepare to make sketches and drawings.
- Task 3 – Create simple sketches and drawings.
- Task 4 – Notate and process drawings.

Each task comes with a set of instructions. You are to follow and perform these instructions while being observed by the assessor and submit any required documentation.

Before starting this assessment, your assessor will also discuss with you these tasks as well as instructions and guidance for satisfactorily completing them. They will also organise the resources required for this assessment (listed below).

You are required to:

- Complete the tasks within the time allowed, as scheduled in-class roll.
- Review the instructions in each task.
- Prepare to make sketches and drawings.
- Create simple sketches and drawings.
- Notate and process drawings.
- Perform the workplace task according to the instructions provided.
- Complete and submit any required documentation.

Resources required for assessment:

To complete this assessment, you will need access to the following:

- A workplace or a similar environment that will allow you access to:
 - Building and construction project
 - Workplace supervisor
 - Construction plans and specifications
 - Current building and construction codes and standards
 - The NCC
 - Hand drawing equipment
 - Workplace procedures and other quality documentation required to undertake the performance criteria and assessment requirements
 - Computers, applications, and software to access drawings and other relevant information.

Task 1 – Confirm Construction Plan Information Complies with Building and Construction Regulations, Standards, and Codes

Access and review a set of construction plans and confirm whether the information recorded in these plans complies with relevant building and construction regulations, standards, and codes.

You will be assessed on:

- Practical knowledge of relevant building and construction regulations, standards, and codes.
- Practical knowledge of construction plans.
- Practical skills in reviewing construction plans for compliance with building and construction regulations, standards, and codes.

Use the **Compliance Review Worksheet** provided along with this workbook to document your review of the construction plan.

After completing the **Compliance Review Worksheet** submit this to your supervisor for review. Have them complete the **Third-Party Report Form** included in the worksheet.

Before starting this task, review the **Workplace Assessment Task 1 – Assessor's Checklist** provided along with this workbook. This form lists the criteria your **Compliance Review Worksheet** submission must address to complete this task satisfactorily.

Your assessor will also:

- Organise workplace resources required for you to complete this assessment.
- Discuss with you the requirements listed in the Assessor's Checklist prior to the assessment.
- Address your queries and concerns regarding this task.

After completing this task, submit the following to your assessor:

- Completed Compliance Review Worksheet, with the Third-Party Report Form completed and signed by your supervisor.
- Copy of set of construction plans you reviewed for this assessment task

Task 2 – Prepare to Make Sketches and Drawings

From the set of construction plans, you reviewed in Task 1, select one structural component and one non-structural component of the fabric of the building which you will produce drawings for. Plan and prepare for the drawings that you will produce in Task 3.

Structural components include but are not limited to columns, foundations, girders, beams, supports, concrete slabs, exterior walls, etc.

Non-structural components include but are not limited to ceiling (heights and variations), doors, light fittings, power suppliers, services, etc.

Use the **Planning Sheet** template provided along with this workbook.

You will be assessed on:

- Practical knowledge of structural and non-structural components of a building
- Practical knowledge of construction plans.
- Practical skills in preparing to make sketches and drawings.

Before starting this task, review the **Workplace Assessment Task 2 – Assessor’s Checklist** provided along with this workbook. This form lists the criteria your **Planning Sheet** submission must address to complete this task satisfactorily.

Your assessor will also:

- Organise workplace resources required for you to complete this assessment.
- Discuss with you the requirements listed in the Assessor’s Checklist prior to the assessment.
- Address your queries and concerns regarding this task.

After completing this task, submit the Planning Sheet you completed to your assessor.

Task 3 – Produce Sketches of Structural and Non-structural Components of the Building Fabric

Produce the following sketches:

- A sketch of the structural component you selected in Task 2.
- A sketch of the non-structural component you selected in Task 2.

Use your organisation’s templates for producing sketches.

You will be assessed on:

- Practical knowledge of the measurements, information and details required for sketches.
- Practical skills in producing 2D and 3D sketches using the information provided in the set of construction plans reviewed in Task 1.
- Practical skills in creating sketches using standard drawing conventions.

Before starting this task, review the **Workplace Assessment Task 3 – Assessor’s Checklist** provided along with this workbook. This form lists the criteria your sketches must address to complete this task satisfactorily.

Your assessor will also:

- Organise workplace resources required for you to complete this assessment.
- Discuss with you the requirements listed in the Assessor’s Checklist prior to the assessment.
- Address your queries and concerns regarding this task.

After completing this task, submit the following to your assessor:

- Sketch of the structural component you selected in Task 2
- Sketch of the non-structural component you selected in Task 2

Secure copies of these sketches as you will use them in Task 4.

Task 4 – Produce Drawings of Structural and Non-structural Components of the Building Fabric

Using the sketches you produced in Task 3, produce the following drawings:

- Drawing of the structural component you selected in Task 2.
- Drawing of the non-structural component you selected in Task 2.

Use your organisation's templates for producing and presenting drawings to stakeholders (e.g. A3 paper, blueprint, PowerPoint, etc.).

You will be assessed on:

- Practical knowledge of the measurements, information and details required for drawings.
- Practical skills in producing 2D and 3D drawings using the information provided in the set of construction plans reviewed in Task 1.
- Practical skills in creating drawings using standard drawing conventions.
- Practical skills in notating and processing drawings for finalisation.

Before starting this task, review the **Workplace Assessment Task 4 – Assessor's Checklist** provided along with this workbook. This form lists the criteria your drawings must address to complete this task satisfactorily.

Your assessor will also:

- Organise workplace resources required for you to complete this assessment.
- Discuss with you the requirements listed in the Assessor's Checklist prior to the assessment.
- Address your queries and concerns regarding this task.

After completing this task, submit the following to your assessor:

- Drawing of the structural component you selected in Task 2
- Drawing of the non-structural component you selected in Task 2

Assessment Workbook Checklist

TO THE CANDIDATE

When you have completed this assessment workbook, review your work, and ensure that:

X You have completed all the Knowledge Assessments Questions.

☐ **You have completed the Practical Assessments in this workbook**

☐ Practical Assignment

X Task 1

X Task 2

X Task 3

☐ Workplace Assessment

X Task 1

X Task 2

X Task 3

X Task 4

☐ **You have saved and submitted the following evidence:**

X This completed workbook

X Assessment Workbook Cover Sheet signed and scanned

☐ **You have saved and submitted the following evidence:**

☐ Workplace Assessment Task 1

X Compliance Review Worksheet

X Copy of set of construction plans

☐ Workplace Assessment Task 2

X Planning Sheet

☐ Workplace Assessment Task 2

X Sketch of one structural component you selected in Task 2.

X Sketch of one non-structural component you selected in Task 2.

☐ Workplace Assessment Task 4

X Drawing of one structural component you selected in Task 2.

X Drawing of one non-structural component you selected in Task 2.

IMPORTANT:

You must achieve a satisfactory result in ALL assessment tasks to be deemed COMPETENT for the unit/s relevant to this workbook.

To be deemed competent in the unit/s of competency relevant to this workbook, you must successfully complete all the requirements listed above according to the prescribed benchmarks provided to the assessor.

TO THE ASSESSOR

When you have completed assessing the assessment workbook, review the candidate's submission against the checklist below:

- ☐ **The candidate has completed all the Knowledge Assessments Questions.**
- ☐ **The candidate has completed the Practical Assessments in this workbook**
 - ☐ Practical Assignment
 - ☐ Task 1
 - ☐ Task 2
 - ☐ Task 3
 - ☐ Workplace Assessment
 - ☐ Task 1
 - ☐ Task 2
 - ☐ Task 3
 - ☐ Task 4
- ☐ **The candidate has saved and submitted the following evidence:**
 - ☐ This completed workbook
 - ☐ Assessment Workbook Cover Sheet signed and scanned
- ☐ **The candidate has saved and submitted the following evidence:**
 - ☐ Workplace Assessment Task 1
 - ☐ Compliance Review Worksheet
 - ☐ Copy of set of construction plans
 - ☐ Workplace Assessment Task 2
 - ☐ Sketch of one structural component

- ☐ Sketch of one non-structural component
- ☐ Workplace Assessment Task 4
 - ☐ Drawing of one structural component
 - ☐ Drawing of one non-structural component

IMPORTANT:

The candidate must achieve a satisfactory result in ALL assessment tasks to be deemed COMPETENT for the unit/s relevant to this workbook.

To be deemed competent in the unit/s of competency relevant to this workbook, the candidate must successfully complete all the requirements listed above according to the prescribed benchmarks.

Record of Assessment (Assessor's Use Only)

RECORD OF ASSESSMENT	
Candidate's Name	
RTO Name	
RTO Contact Number	
RTO Email Address	
Assessor's Name	
Unit of Competency	CPCBC4014 - Prepare simple building sketches and drawings (Release 1)

Knowledge Assessment	S	NYS
Question 1	☐	☐
Question 2	☐	☐
Question 3	☐	☐
Question 4	☐	☐
Question 5	☐	☐
Question 6	☐	☐
Question 7	☐	☐
Question 8	☐	☐
Question 9	☐	☐
Question 10	☐	☐
Question 11	☐	☐
Question 12	☐	☐

Practical Assessment		
Practical Assignment	S	NYS
Task 1	☐	☐

Practical Assignment	S	NYS
Task 2	☐	☐
Task 3	☐	☐
Workplace Assessment	S	NYS
Task 1	☐	☐
Task 2	☐	☐
Task 3	☐	☐
Task 4	☐	☐

Rules of Evidence	S	NYS
All knowledge and skills evidence submissions are valid	☐	☐
All knowledge and skills evidence submissions are authentic	☐	☐
All knowledge and skills evidence submissions are sufficient	☐	☐
All knowledge and skills evidence submissions are current	☐	☐

Signature Authentication Checklist	
This checklist will guide you in authenticating the signatures provided by the candidate in their assessment workbook and evidence submissions. Read each checklist item and tick the box only if you confirm that the item is a true and accurate reflection of the signature authentication you have conducted.	
Checklist	Completed
I have checked the signature provided by the candidate in the Assessment Workbook Cover Sheet against the signature they provided to the Training Provider.	☐
I confirm the signature provided by the candidate in the Assessment Workbook Cover Sheet matches the signature they provided to the Training Provider.	☐
I confirm ALL signatures provided by the candidate in their evidence submissions match with the signature they provided to the Training Provider.	☐

Third-Party Verification Log

Instructions for the Assessor:

You are required to contact all third-party personnel involved in the candidate's assessment to verify the candidate's performance and evidence submissions and to confirm with them whether the candidate's evidence submissions are true and accurate.

Complete this Third-Party Verification Log to document your completion of this process. When completing this log, provide all of the following required information for each third-party personnel:

- Name of third-party personnel contacted
- Role in the candidate's assessment (e.g. workplace supervisor, observer, or candidate)
- Contact details (phone number or email address)
- Date contacted

You must also confirm that third-party personnel have verified the candidate's evidence submissions are true and accurate.

Name of Third-party Contacted	Role in the Candidate's Assessment	Contact Details (Phone number or email address)	Date contacted	Third-Party verifies evidence submissions of the candidate are true and accurate?
				Yes ☐ No ☐ Assessor's Notes
				Yes ☐ No ☐ Assessor's Notes
				Yes ☐ No ☐ Assessor's Notes
				Yes ☐ No ☐ Assessor's Notes

Overall Result for this Workbook	S	NYS
Overall Result	☐	☐

Assessor's comments/feedback**Assessor Declaration**

I declare that the results recorded in this *Record of Assessment* are true and accurate.

Assessor's name

Assessor's signature

Date signed

End of Record of Assessment (For the Assessor's Use Only)

End of Document