

CPCCBC4012

READ AND INTERPRET PLANS AND SPECIFICATIONS

ASSESSMENT SUMMARY

The assessment activities for *CPCCBC4012 Read and interpret plans and specifications* cover all aspects of the unit of competency. For Apprentices/Trainees, this includes supervisor completion of the Apprentice/Trainee Record (ATR).

Participants must read all the information given before starting any assessment task. The assessment tasks are intended to be fair, flexible, valid and reliable. If a Participant has any questions or requires alternative arrangements to be made such requests should be directed to their Trainer/Assessor, who should note such arrangements in the 'Assessor Comments' on the affected assessment. If a Participant feels they are not yet ready to be assessed, they should discuss their options with their Trainer/Assessor.

To satisfactorily complete the assessment, the Participant is required to answer all questions correctly and demonstrate their skills to industry standards. If a Participant does not answer all questions or perform all tasks, they will be deemed 'Not Satisfactory' for the task and 'Not Yet Competent' for the unit of competency.

The Trainer/Assessor can provide the Participant with additional information on interpreting the assessment outcomes and guide the Participant's options. If a Participant is still deemed 'Not Satisfactory' they will have the opportunity to undertake a supplementary assessment or appeal the result as per the process in the Student Handbook.

By signing below, the Participant acknowledges:

- They understand the assessment instructions and requirements, and consent to being assessed.
- The work submitted is to be their own work – with the work of/with others needing to be clearly acknowledged and documented.
- They consent to any photo/video recording of their work that occurs during assessment.

Participant name	Rex Hendeson
Participant signature	

Pre-requisite unit(s) to be achieved and authenticated prior to undertaking assessment

☒ Not applicable

Task	Date completed	Assessment Results	
Theory Exam	Select Date.	☐ Satisfactory	☐ Not Satisfactory
Workbook	Select Date.	☐ Satisfactory	☐ Not Satisfactory
Practical Assessment	Select Date.	☐ Satisfactory	☐ Not Satisfactory
Outcome for CPCCBC4012	Select Date.	☐ Competent	☐ Not Yet Competent

Evidence requirements checklist (ticked by assessor and evidence supplied to RTO)

- | | |
|--|--|
| ☐ Theory Exam
☐ Workbook
☐ Practical Assessment | ☐ Slab Plan for Activity 3 (HO3 available)
☐ Cost Estimation Sheet for Prac (HO5 available) |
|--|--|

Assessor name	
Assessor signature	

CPCBC4012

READ AND INTERPRET PLANS AND SPECIFICATIONS

THEORY EXAM

Participant name	Rex Henderson
------------------	---------------

FOR THE PARTICIPANT	
Instructions	
• You will complete written questions as outlined on the following pages. You must attempt all questions and provide enough detail in your responses to demonstrate your knowledge. • It is anticipated that you should complete this assessment within two (2) hours, but additional time may be allowed upon negotiation with the Assessor. • You must complete all questions unassisted by the Assessor or other personnel but may refer to reference material as needed. All questions must be answered correctly for a 'Satisfactory' assessment outcome to be awarded. ○ An oral examination may be allowed under certain circumstances, whereby your answers will be documented by another party. ○ Any written questions that are incomplete, or not answered satisfactorily will need to be completed again after further training support. ▪ If you answer a question incorrectly but modify your response, put your initials next to the written change (or the Assessor must initial a verbal change).	
Resources required	
Pen	

FOR THE ASSESSOR	
Instructions	
• Where oral examination has occurred, ensure that this is acknowledged in writing (e.g. FT001 and Assessor Comments) • All questions must be satisfactorily demonstrated by the Participant for a Satisfactory determination (indicated by an Assessor tick to the right of the question). • Assessors are to complete marking in pen of a different colour to the Participant. • If the Participant verbally modifies their response, write in the modified response verbatim and put your initials next to the written change.	

ASSESSOR COMMENTS
As necessary, outline: • Details on reattempts, alternative arrangements or reasonable adjustments made. • Where a Participant is deemed 'Not Satisfactory', provide recommendations for future training.

Q1. What is the significance of concept drawing/sketches?

Answer concept drawings and sketches are essential tools in the creative and design process, helping to develop, communicate, and refine ideas before more technical work begins.

☐**Q2. Discuss when you may come across concept drawings/sketches.**

Answer You can come across concept drawings or sketches in a wide range of industries, from architecture and industrial design to fashion, film, and engineering. They serve as an essential tool for visualizing ideas, exploring possibilities, and communicating concepts early in the design process. Whether for brainstorming, client presentations, or early-stage planning, concept sketches help transform abstract ideas into tangible visual forms that guide further development.

☐**Q3. Explain what is meant by architectural plans.**

Answer Architectural plans are detailed drawings or diagrams that represent the layout, design, and construction details of a building or structure. They serve as a blueprint for architects, builders, engineers, and contractors to understand how a project will be built and ensure that it meets all design, safety, and regulatory standards. These plans are created during the design phase and are essential for guiding the construction process.

☐**Q4. Provide four (4) plans that are considered part of the architectural plans.**

- Answer**
1. Floor plan
 2. Elevation Plan
 3. Site Plan
 4. Section Plan (Cross Section)

☐

Q5. Describe what structural plans are.

Answer

Structural plans are detailed drawings that outline the design and specifications for a building's structural elements, ensuring that the building will be stable, durable, and capable of withstanding the loads and forces it will experience over its lifetime. These plans are an essential part of the overall construction documentation and are created by structural engineers in collaboration with architects and other professionals.



Q6. How is a structural plan different from an architectural plan?

Answer

While architectural plans focus on the overall design and aesthetic of the building, structural plans focus on the engineering aspects of how the building will be safely constructed and support various loads. Both plans are essential and work together to ensure that the building is not only functional and visually appealing but also structurally sound and safe for occupancy.



Q7. Explain what a civil plan is.

Answer

Civil plans are a critical component of the overall planning and construction process, dealing with the design and management of infrastructure elements such as grading, drainage, utilities, and roadways. Created by civil engineers, these plans ensure that a building or development can function properly, comply with regulations, and integrate into its environment. They work in conjunction with architectural plans and structural plans to create a safe, efficient, and sustainable construction project.



Q8. Discuss how civil plans may be similar to other plans.

Answer

While civil plans are focused on site infrastructure (roads, grading, drainage, utilities, etc.), they share several similarities with other construction plans—architectural, structural, and MEP plans—because all of these plans must work in harmony to create a functional, safe, and efficient building or development. Each set of plans, though specialized in different areas, supports the overall success of the project by providing detailed specifications, ensuring regulatory compliance, and promoting collaboration across multiple disciplines. This holistic approach is essential to ensure that all aspects of the project come together to create a well-designed and well-constructed environment.



Q9. What is the purpose for mechanical plans?**Answer**

The primary purpose of mechanical plans is to ensure the efficient and effective design and installation of the building's mechanical systems, which are essential for the comfort, safety, health, and long-term operation of the building. These systems include HVAC, plumbing, fire protection, and sometimes vertical transportation systems (like elevators). Mechanical plans ensure that these systems meet regulatory standards, integrate well with other building systems, and provide a safe, comfortable, and energy-efficient environment for building occupants. By carefully designing these systems, mechanical plans also help reduce operating costs, improve energy efficiency, and enhance occupant well-being.

**Q10. Discuss three (3) details you may find in mechanical plans.****Answer**

1. HVAC System Layout:
2. Plumbing System Layout:
3. Fire Protection System Design:

**Q11. When would electrical plans be used?****Answer**

Electrical plans are used primarily during the design, construction, inspection, and operation stages of a building project to ensure the safe and efficient installation and functioning of electrical systems. These plans provide the necessary details for designing and installing lighting, power distribution, data systems, and emergency systems. They also serve as an ongoing reference for troubleshooting, maintenance, and upgrading electrical systems as the building is used over time. The primary goal of electrical plans is to ensure that a building's electrical infrastructure is designed and installed to meet the needs of its occupants while adhering to safety standards and code requirements.

**Q12. Provide three (3) examples of details contained in electrical plans.**

Answer

1. Lighting layouts
2. outlet placements
3. distribution system



Q13. What are plumbing and drainage plans used for?

Answer

Plumbing and drainage plans are used for the design, installation, and maintenance of water supply and waste removal systems in a building.



Q14. Discuss what may be needed when plans display council pipework.

Answer

When plans display council pipework, they represent the connection between the private plumbing system and the municipal or council-managed utilities (e.g., water, sewer, and stormwater systems).



Q15. Why is it important to check and ensure that the plans you are using are the current version?

Answer

Ensuring that the plans you are using are the current version is essential to avoid legal, safety, financial, and logistical issues. The risks of using outdated plans can include non-compliance with codes, safety hazards, budget overruns, project delays, and poor coordination among teams. To ensure smooth project execution, always verify that the plans you're using are the most up-to-date version, have been approved by relevant authorities, and reflect the most recent design changes or regulatory updates. This will help keep the project on track, meet quality standards, and ensure a safe, compliant, and cost-effective outcome.

**Q16. What can occur if an outdated version of the plans is used?****Answer**

Using an outdated version of construction plans can have far-reaching consequences, including safety risks, legal issues, budget overruns, and delays. It can result in costly errors, unsafe conditions, compliance violations, and missed opportunities for innovation or sustainability. To mitigate these risks, it is essential to ensure that the most current plans are always being used, reflecting the latest regulations, design changes, and technological advancements. Regularly checking for updates and verifying the approval status of the plans will help keep the project on track and compliant with legal and safety requirements.

**Q17. Discuss what site plans are drawn to reflect.****Answer**

Site plans are critical documents that reflect a wide range of elements necessary for a successful construction project. They show how the building, landscape, utilities, and infrastructure are arranged and ensure that the project complies with legal requirements, safety standards, and environmental considerations. Whether for a residential, commercial, or industrial development, site plans provide a comprehensive overview of how the proposed construction fits into the existing site context and ensure that the project can be executed efficiently, safely, and in compliance with regulations.



Q18. Discuss the purpose of reading the floor plan.

Answer

The purpose of reading a floor plan is to gain a comprehensive understanding of how a building's interior is structured, how it will function, and how the space will meet the needs of its occupants. From understanding room layouts and dimensions to ensuring safety, code compliance, and planning for future modifications, reading a floor plan allows all stakeholders involved in the project to make informed decisions and ensure the successful design, construction, or renovation of a building. Whether for construction, renovation, or simply visualizing the space, floor plans are essential tools for creating efficient, functional, and aesthetically pleasing environments.



Q19. Discuss two (2) key differences between elevation view and section view.

Answer

1. Elevation View
2. Section View



Q20. Discuss the purpose of reading detail drawings.

Answer

Reading detail drawings is essential for ensuring that a construction project is built to the exact specifications, meets all safety and regulatory requirements, and is executed efficiently. They help clarify complex construction elements, provide detailed instructions, ensure accuracy, improve communication among stakeholders, and facilitate the integration of different building systems. Detail drawings are critical for the success of a project, as they provide the clarity and precision needed to turn architectural and engineering ideas into a finished, functional structure.

**Q21. Why is it important to measure from a datum point?****Answer**

Measuring from a datum point is essential for accuracy, consistency, and coordination in construction projects. It provides a reliable reference for all measurements, ensures proper alignment of structural elements, minimizes errors, and helps maintain compliance with building codes. The use of a datum point is particularly important in large, complex projects and ensures that all stakeholders are working from the same reference, ultimately contributing to the structural integrity, safety, and success of the building or infrastructure project.

**Q22. Discuss what reduced levels (RL) are and how these are established in construction drawings.**

Answer

Reduced Levels (RL) are essential in construction as they ensure that all parts of a project are at the correct elevation relative to a reference point. They help in the accurate positioning of building elements, maintain consistency across the project, ensure structural integrity, and facilitate coordination between different trades. By establishing precise RLs through surveying, marking them on construction drawings, and ensuring proper execution on-site, builders can ensure that a project is constructed with the necessary accuracy for safety, performance, and compliance with regulations.



Q23. Describe the purpose of the title block and what it contains.

Answer

The title block is an essential part of construction drawings that ensures accurate identification, traceability, and effective communication between project stakeholders. It contains critical details about the project, the drawing itself, and its revisions, making it a vital reference tool for architects, engineers, contractors, and anyone involved in the construction process. By including project identification, revision history, scale, and approval details, the title block helps to maintain the integrity and clarity of the documentation throughout the entire lifecycle of a project.



Q24. Where is the title block usually located on the plans?

Answer

In most construction and architectural drawings, the title block is conventionally located in the bottom right corner, though its placement can vary depending on drawing format, standards, and organizational preferences. The key purpose is to make it easily accessible while ensuring it does not obstruct the main content of the drawing.



Q25. Describe the purpose of using scale drawings in construction.

Answer

The purpose of using scale drawings in construction is to ensure accuracy, clear communication, and efficient project execution. These drawings allow everyone involved in the project to visualize the design and dimensions accurately, plan the construction process, ensure compliance with regulations, and minimize errors. By maintaining proportional relationships between the drawing and the actual structure, scale drawings provide the foundation for building everything from residential homes to large-scale infrastructure projects.

**Q26. Describe each ratio of standard scale ranges below.****Answer**

Ratio	Description
1:100	For one unit of the drawing the real size of object is 100 times bigger
1:2	For one unit of the drawing the real size of object is 2 times bigger
1:50	For one unit of the drawing the real size of object is 50 times bigger

**Q27. Describe why examining detail drawings is important.****Answer**

Examining detail drawings is essential for ensuring accuracy, clarity, and coordination in construction. These drawings provide the necessary specifics and precise instructions that help contractors, designers, and other stakeholders understand how to implement complex design features, avoid errors, comply with regulations, and ensure the overall quality and safety of the finished building. By focusing on the fine details of materials, construction methods, and connections, detail drawings help ensure that the final structure not only meets design expectations but also performs as intended in the real world.

**Q28. What is the difference between utilities plans and specifications and services plans and specifications in the context of building construction?**

Answer

In summary, the key distinction between utilities plans and specifications and services plans and specifications is their scope and focus:

Utilities plans are primarily concerned with the external connections to utility systems (water, gas, electricity, etc.) and ensure the building has reliable access to these services.

Services plans, on the other hand, focus on the internal systems that support the operation, comfort, and functionality of the building, such as HVAC, plumbing, electrical systems, and fire safety.

Both types of plans are essential to the construction process and are required to ensure that a building is fully operational, safe, and comfortable for its occupants.



Q29. Describe what is meant by each of the following drawing descriptions.

Answer

Drawing description	Meaning
Isometric drawings	An isometric drawing is a simple yet effective way to represent three-dimensional objects on a two-dimensional plane. By showing all three axes (width, height, and depth) at equal scale
Oblique drawings	If you were to draw a simple box: The front face (width × height) would be drawn straight on, showing the box in true proportion. The depth would be drawn at a 45-degree angle to the front face. In a cabinet oblique, the depth lines would be foreshortened (reduced by half), while in a cavalier oblique, the depth lines would be at full scale. The box would appear as if you were viewing it from an angle, with the depth extending backward at a slant.
Perspective drawings	Perspective drawings are an essential tool for creating realistic visualizations in architecture, design, and art. By using vanishing points and foreshortening, these drawings accurately simulate depth, helping viewers understand how an object or scene would appear in the real world.
Orthographic drawings	An orthographic drawing typically includes multiple views of the object, each representing a different aspect or dimension of the design. The most common views are: Front view: Shows the object as seen from the front. Top view (Plan view): Shows the object from above. Side view(s): Shows the object from either the left or right side. These views are arranged systematically, either side by side or stacked vertically, so the object



	can be understood in three dimensions by referencing multiple projections.
--	--

Q30. What are CAD drawings? Explain how CAD is used in building and construction.

Answer CAD (Computer-Aided Design) is a fundamental tool in modern building and construction. It enhances the design process by providing precision, flexibility, and the ability to visualize complex structures in 2D and 3D formats. CAD not only improves the speed and efficiency of designing and drafting construction plans, but it also facilitates collaboration, reduces errors, and integrates various engineering disciplines into one unified system. From the initial design phase to construction documentation, CAD plays an essential role in making modern construction projects more streamlined, cost-effective, and accurately executed.



Q31. Provide a brief description of the given classes of buildings according to the National Construction Code.

Answer

Building Class	Description
Class 1a building	Class 1a – Single Dwelling (Detached House)
Class 2 building	Class 2 buildings are multi-residential buildings that are typically apartment buildings or flats. They consist of two or more separate dwellings, which are designed to be individually occupied by different households.
Class 4 building	A Class 4 building is a single dwelling (usually an apartment or residence) that is located within a commercial or industrial building.
Class 5 building	A Class 5 building is primarily used for office purposes, meaning it houses spaces where people conduct professional, administrative, or clerical work.
Class 7b building	A Class 7b building is used for the storage of goods, materials, or equipment, typically in a non-retail environment.



Class 10a building	A Class 10a building is designed for non-habitable use, meaning it is not intended for long-term living or as a place where people sleep or reside.
--------------------	---

Q32. What is building information modelling (BIM)?

Answer ☐ Building Information Modelling (BIM) is a revolutionary process in the construction industry, offering an integrated digital representation of a building's physical and functional aspects. It enhances collaboration, improves design accuracy, optimizes resource management, and supports sustainable practices throughout the entire lifecycle of a building, from design and construction to operation and maintenance. By using BIM, construction teams can reduce costs, mitigate risks, and create higher-quality, more efficient buildings.

Q33. Explain how the NCC is relevant to construction drawings.

Answer ☐ The NCC is integral to construction drawings because it provides the technical and regulatory framework that ensures buildings are safe, sustainable, and accessible. Construction professionals use the NCC as a reference to create designs that meet the required standards for safety, structural integrity, fire protection, energy efficiency, accessibility, and health and safety. Construction drawings must incorporate these requirements to ensure that a project complies with the law and meets the necessary standards for the building's lifecycle.

Q34. Discuss the importance of complying with standards during a building and construction project.

Answer

Complying with standards in a building and construction project is essential for the safety, quality, and long-term success of the project. It ensures that the building is safe, functional, and comfortable for its occupants, while also meeting environmental and sustainability goals. Additionally, it helps avoid legal issues, reduces the risk of costly errors, and builds the reputation of the professionals involved in the project. Standards provide a critical framework that aligns the design, construction, and operation of buildings with best practices and regulatory requirements, ultimately ensuring that projects are completed successfully and sustainably.



Q35. Discuss how you would identify wind bracing and tie-down requirements from construction plans.

Answer

Examine structural plans to find shear walls, bracing systems, and roof diaphragms that are designed to resist wind forces.
Look for notations and symbols indicating the use of wind bracing elements, such as X-braces or shear panels.
Review foundation plans for details on anchor bolts and tie-down connections that secure the structure to the ground.
Ensure that anchor bolts, tie-down straps, and roof-to-wall connections are clearly specified with material and fastening details.
Cross-reference with wind load calculations and regional building codes to ensure all design requirements are met for high-wind conditions.
Finally, review specialized details for cyclonic or high-wind zones, which may impose stricter tie-down and bracing requirements.



Q36. Discuss why you would access AS 1684.2 Residential timber-framed construction, Part 2: Non-cyclonic areas, when reading plans and specifications.

Answer

Accessing AS 1684.2 Residential Timber-Framed Construction, Part 2: Non-Cyclonic Areas is essential when reading construction plans and specifications for residential buildings located in non-cyclonic regions of Australia. It provides the minimum design criteria and construction practices for timber-framed buildings to ensure they are structurally sound, safe, and compliant with local building codes and standards.

By referencing this standard, you can ensure that the timber frame is appropriately sized and spaced, bracing and tie-down systems are correctly designed, and the foundation and roof framing meet the required safety and strength standards. This ensures the building will perform well under expected loads and wind conditions without the additional complexities required for cyclone-prone areas.



Q37. Reasonable allowances are made by builders for the different construction items in a building project. Discuss what Prime Cost (PC) items are.

Answer

Prime Cost (PC) items are provisional items in a construction contract that allow the builder to provide an estimate of the cost for materials, fixtures, or products that are yet to be selected by the client. They offer flexibility for clients to choose from a range of options without delaying the project. However, the final cost of these items may vary depending on the client's selections, which can lead to adjustments to the overall project price.

In essence, PC items are a way to accommodate uncertain or changing requirements in a building project, allowing the client to make decisions later while maintaining transparency in pricing and managing expectations about final costs.



Q38. Explain what Provisional Sum (PS) items are.

Answer

A Provisional Sum (PS) item is a budget allowance in a construction contract for work or materials that cannot be fully specified or defined at the time the contract is signed. PS items are used for tasks or areas where the exact scope, cost, or specifics are uncertain, such as site preparation, earthworks, or specialized installations. The final cost of a PS item is adjusted once the work is completed or the details are fully known, with any difference added or subtracted from the final contract sum.

PS items offer flexibility and transparency in managing uncertainty during construction and protect both the builder and the client from cost overruns or changes in the scope of work.



Q39. Explain how to locate installation points of the services to the building from the plans.

Answer

To locate the installation points of services on construction plans, you need to:

Identify the relevant plans for each service (plumbing, electrical, HVAC, etc.).

Understand the drawing conventions and symbols used for each service type.

Review floor plans, section views, ceiling plans, and detail drawings to identify the exact locations for each service.

Cross-check dimensions, specifications, and coordination to ensure accurate placement and integration of services within the building.

By carefully reviewing all the relevant information, you can ensure that services are installed correctly and efficiently, meeting both the design requirements and relevant building codes.



Q40. Explain how to locate connection points of services to the building from the plans.

Answer

To locate connection points of services to a building from the plans:



Site plans will show the connection points where external services (water, gas, electricity, etc.) enter the building.
Floor plans indicate how these connections are distributed inside the building (e.g., water pipes, electrical circuits, gas lines).
Elevation plans show vertical service connections like plumbing stacks, electrical risers, and gas meter placements.
Utility plans provide detailed routing for each service, ensuring the correct alignment of service connections.
Detail drawings and specifications offer precise instructions on how connections should be made and what materials or systems are required.
Annotations and callouts clarify the exact locations and connections, ensuring accurate installation.
Always check with local utility providers to confirm the proper locations and requirements for service connections.
By following these steps and reviewing the appropriate plans, you can effectively identify and verify the correct connection points for all building services.

Q41. Explain how to locate fixtures from the plans.**Answer**

Identify the relevant plans (floor plans, plumbing plans, electrical plans, mechanical plans).
Understand the symbols used to represent different fixtures (e.g., sinks, lights, switches).
Review floor plans to see where fixtures are located within the building layout.
Cross-reference with other plans (e.g., plumbing, electrical, mechanical) for more detail on fixture installation.
Look for annotations and callouts that provide additional information like dimensions and specific fixture types.
Check section and detail views to get more precise information on fixture placement, especially for fixtures in walls or ceilings.
Ensure you are aware of the required dimensions and spacing for proper fixture installation.
Verify with specifications to ensure compliance with building codes and installation standards.
By carefully reviewing the construction plans and understanding these steps, you can accurately locate the fixtures in a building and ensure their proper installation.



CPCBC4012

READ AND INTERPRET PLANS AND SPECIFICATIONS

WORKBOOK

Participant name	Rex Henderson
------------------	---------------

FOR THE PARTICIPANT

Instructions

- You will complete written activities as outlined on the following pages. You must attempt all questions and provide enough detail in your responses to demonstrate your knowledge.
- The timeframe for these tasks will be established by your Assessor or Training Plan, but additional time may be allowed upon negotiation with the Assessor.
- You must complete all questions unassisted by the Assessor or other personnel but may refer to reference material as needed. All questions must be answered correctly for a 'Satisfactory' assessment outcome to be awarded.
 - An oral examination may be allowed under certain circumstances, whereby your answers will be documented by another party.
 - Any written questions that are incomplete, or not answered satisfactorily will need to be completed again after further training support.
 - If you answer a question incorrectly but modify your response, put your initials next to the written change (or the Assessor must initial a verbal change).

Resources required

Pen

FOR THE ASSESSOR

Instructions

- Where oral examination has occurred, ensure that this is acknowledged in writing (e.g. FT001 and Assessor Comments)
- All questions must be satisfactorily demonstrated by the Participant for a Satisfactory determination (indicated by an Assessor tick to the right of the question).
- Assessors are to complete marking in pen of a different colour to the Participant.
- If the Participant verbally modifies their response, write in the modified response verbatim and put your initials next to the written change.

ASSESSOR COMMENTS
As necessary, outline: • Details on reattempts, alternative arrangements or reasonable adjustments made. • Where a Participant is deemed 'Not Satisfactory', provide recommendations for future training.

NOTE

At times, you will be provided with a specific business context to which you must respond, otherwise it is anticipated that you will use a workplace of your choosing (your own, or hypothetical) to provide the context to the task.

At all times, the responses in your assessment must reference **Australian** (Queensland or Federal) documentation, including legislation, regulations, codes of practice, standards and guidance publications.

For the following activities, name the State/Territory you will base your research on.

State/ Territory	Queensland
-------------------------	------------

ACTIVITY 1

Research and document your findings regarding legislation and codes that apply in your state/territory relevant to the following three (3) items. Summarise the requirements relevant to building drawings and sketches you identified and provide the URL where you sourced your responses.

- a) Smoke alarms in a new building
- b) Pool fences
- c) Protection of waterways

a) Smoke alarms**Name of Legislation (Commonwealth or State)**

The key legislation that specifically addresses smoke alarms in new buildings, as well as in renovations, is the Fire and Emergency Services (Smoke Alarms) Amendment Act 2016.

Summary of relevant excerpt/requirement

The Fire and Emergency Services (Smoke Alarms) Amendment Act 2016 mandates the use of photoelectric smoke alarms in new buildings and in existing homes being renovated or sold.

As of 1 January 2017, this legislation applies to all new residential buildings and substantial renovations in Queensland, specifying that photoelectric smoke alarms are required in every bedroom, hallway, and on every level of the building.

The alarms must be interconnected, so that if one alarm sounds, all alarms will sound.

The legislation ensures that the minimum standards for fire safety, including smoke alarm installation, are met and are in line with the National Construction Code (NCC) and Australian Standards (AS 3786) for smoke alarms.

Source (URL or web source)

Queensland Government Smoke Alarm Requirements (2017):
<https://www.qfes.qld.gov.au/community-safety/smoke-alarms/>

Queensland Building and Construction Commission (QBCC) - Smoke Alarm Legislation:
<https://www.qbcc.qld.gov.au/consumer/building-approval-process/smoke-alarms>

Building Code of Australia (BCA) / NCC - Volume Two:
<https://ncc.abcb.gov.au/>

b) Pool fence installation

Name of Legislation (Commonwealth or State)

The Building Act 1975 is the principal piece of legislation governing the construction of buildings in Queensland, including requirements for pool fences

Summary of relevant excerpt/requirement

Pool Fencing Requirements: The Act mandates that all pools must be surrounded by a fence that complies with safety standards designed to prevent children from gaining unsupervised access to the pool. Pool fences must be non-climbable, have secure gates, and meet height and spacing requirements.

Height of Pool Fences: The fence must be at least 1.2 meters in height.

Non-Climbable Zones: The fence should be constructed in a way that prevents children from climbing over it. This includes having non-climbable materials at the top of the fence and ensuring that horizontal rails are kept to a minimum.

Gates: Pool gates must be self-closing and self-latching. The latch must be placed at least 1.5 meters above ground level to ensure it is out of reach of children.

Gap Restrictions: Gaps between fence bars must be no more than 100mm in width to prevent children from slipping through.

Proximity to Structures: The pool fence should be at least 900mm away from any nearby structures or objects that a child could use to climb over the fence.

Maintenance and Inspections: Pool fences must be maintained to ensure they are always compliant with the regulation. Inspections are required for pool fences as part of the overall pool safety compliance.

Source (URL or web source)

Queensland Government, Pool Safety: <https://www.qld.gov.au/housing/buying-owning-home/pool-safety>

Building Act 1975 (Queensland):
<https://www.legislation.qld.gov.au/view/html/inforce/current/act-1975-077>

Pool Safety Regulation 2008:
<https://www.legislation.qld.gov.au/view/html/inforce/current/si-2008-0760>

Australian Standard AS 1926.1:2012 – Swimming Pool Safety:
<https://www.standards.org.au/>

Queensland Development Code MP 3.4: <https://www.qld.gov.au/environment/land/planning>

c) Protection of waterways

Name of Legislation (Commonwealth or State)

The Environmental Protection Act 1994 (EP Act) is a key piece of legislation in Queensland that regulates environmental protection across the state.

Summary of relevant excerpt/requirement

Water Quality Protection: Developers and builders must ensure that any construction activity does not result in water pollution. This includes managing stormwater runoff, sediment, and other contaminants that could be discharged into waterways.

Pollution Control: If a building or development is within proximity to a waterway, construction must incorporate measures to prevent sedimentation, runoff, or chemicals from entering the water, including during heavy rainfall.

Environmental Management Plans: An Environmental Management Plan (EMP) may be required for larger developments or those near sensitive waterways. This plan outlines how construction activities will avoid pollution, how sediment will be controlled, and how stormwater runoff will be managed.

Source (URL or web source)

Environmental Protection Act 1994 (Queensland):
<https://www.legislation.qld.gov.au/view/html/inforce/current/act-1994-042>

Water Act 2000 (Queensland):
[\[https://www.legislation.qld.gov.au/view/html/inforce/current/act-2000-034\]](https://www.legislation.qld.gov.au/view/html/inforce/current/act-2000-034)(<https://www.legislation.qld.gov.au/view/html>

**Satisfactory
Outcome**



ACTIVITY 2

Access Handout 1 (HO1 - Floor Plan with dimensions) and respond to the following:

- a) What is used for the internal wall lining?
- b) What is used for the external cladding?
- c) What roofing cladding is required?
- d) How do you identify the smoke alarm installation points?

a) What is used for the internal wall lining?

Clay brick to all internal walls

b) What is used for the external cladding?

Painted render finish to external walls

c) What roof cladding is required?

d) How do you identify the smoke alarm installation points?

With an "S" inside a circle

**Satisfactory
Outcome**



ACTIVITY 3

Access Handout 2 (HO2 - Footing Plan) and Handout 3 (HO3 - Slab Plan) and respond to the following:

- a) Specify the size and type of reinforcing to be used for BP.1 in Handout 2 (HO2 - Footing Plan)
- b) How do you determine where each BP.1 footing pier should be placed?
- c) Mark each of the load bearing points in Handout 3 (HO3 - Slab Plan)

a) Specify the size and type of reinforcing to be used for BP.1

BP.1 450mm diameter concrete bored pier-AT SC.1
 Concrete grade 25MPa
 Reinforcement vertical 5.N12
 ligs R6 Helix -200mmpitch
 Cover 40mm top + sides
 75mm base of pier

b) How do you determine where each BP.1 footing pier should be placed?

This is a structural Drawing. For Setout you would have to refer to the architectural drawings.

c) Mark each of the load bearing points in Handout 3 (HO3 - Slab Plan)

Pad Footings, Strip footings, Slab, Columns, Retaining wall and Limestone retain wall.

**Satisfactory
Outcome**



ACTIVITY 4

Access Handout 4 (HO4 - Residential Floor Plan) and respond to the following:

- a) Which drawings are shown in these plans?
- b) Which Australian Standard must be referenced when installing termite protection?
- c) Make a list of the finishes noted on the document.

a) Which drawings are shown in these plans?

Floor plan and elevations. Architectural plans.

b) Which Australian Standard must be referenced when installing termite protection?

Builder shall provide "biflex" termiticide & inspection or similar approved anti-termite treatment applied to manufacturer's instructions & in accordance with Australian standards AS 3660 SE

c) Make a list of the finishes noted on the document.

Exhaust fan
Range Hood
Washing machine recess
Laundry trough
Vanity bench and basin
Water closet
Dish washer
Cavity closer

**Satisfactory
Outcome**



CPCBC4012

READ AND INTERPRET PLANS AND SPECIFICATIONS

PRACTICAL ASSESSMENT

Participant name	Rex Henderson
------------------	---------------

FOR THE PARTICIPANT
Instructions - The tasks outlined on the following pages will require performance of normal workplace activities, as a result of a structured activity set by an Observer in the workplace or a simulated activity set by your Assessor/Observer. - The timeframe for these tasks will be established by your Assessor/Observer, in consideration of location conditions and industry requirements. - You must complete all tasks unassisted by the Assessor or other personnel, unless the steps note this assistance. - You must attempt all tasks (and itemised steps) for a 'Satisfactory' assessment outcome to be awarded. - For any observation conducted that is incomplete, or without satisfactory performance, the observation will need to be completed again after further training support.

FOR THE ASSESSOR/OBSERVER
Instructions - The following observation record should be used to judge and record your observations of the Participant as they complete the task(s) set. You must record your observations of the Participant's performance. - For each occasion, indicate the task performed and whether it was a simulation or workplace-based task. - Any simulated assessment must ensure the Participant still performs under workplace conditions which reflect industry standards. - In the comments, provide clear detail regarding the task that the Participant was required to do (e.g. PPE used, materials handled, attachments connected, plant types). - All steps must be satisfactorily demonstrated by the Participant for a 'Satisfactory' determination (indicated by an Assessor tick to the right of each itemised step, or an Observer tick to the right of each itemised step, and confirmation by an Assessor in the Assessor Comments). - Where you have determined that one or more task steps have not been satisfactorily demonstrated, provide the Participant with additional support and outline details of such assistance in the Assessor/Observer Comments. Allow the Participant two (2) further opportunities to demonstrate the task again to allow an opportunity for a 'Satisfactory' assessment outcome to be achieved. - If after three (3) attempts the Assessor determines that the Participant cannot demonstrate the required steps, a 'Not Satisfactory' outcome is to be determined.

TASK OUTCOME					
Task	Date	Task Type (Tick)	Location	Task outcome (Tick)	
				Satisfactory	Not Satisfactory
Task 1	Select Date. 14/11/24	☒ Workplace ☐ Simulation	Private hospital site maroochydore	☒	☐

ASSESSOR COMMENTS: GENERAL

As necessary, outline:

- Details on reattempts, alternative arrangements or reasonable adjustments made.
- Where a Participant is deemed 'Not Satisfactory', provide recommendations for future training.

ASSESSOR COMMENTS: PRACTICAL TASK 1: OCCASION 1

- ☐ Individual student (as named on cover page)
- ☐ Multiple students [☐ All from Attendance Report, ☐ Specific students involved – identify students]

Task	Provide detail
1.1A. 1.1B.	Specify type of plan and NCC class determined:
1.1A. 1.1C.	Specify how currency of documents was confirmed:
1.1D.	Specify environmental controls determined from plans/specifications.
1.2B. 1.2D.	Specify how building layout, material requirements spaces and dimensions were determined from plans and specifications.
1.2G.	Specify services identified on site:
1.2H.	Specify site features located to be removed/ retained:
1.2J.	Specify variations found:

1.3A.	Specify concrete footing and slab information identified:
1.3B.	Specify how load bearing points were recognised:
1.3C.	Specify how wind bracing and tie down requirements were confirmed:
1.4B. 1.4C.	Specify how installation points and fixtures were determined:
1.4B.	Specify how connection points were determined:
1.4C.	Specify where finishing details were located:

CPCBC4012

READ AND INTERPRET PLANS AND SPECIFICATIONS

Practical Task 1

Description of task:

The participant must demonstrate skills and knowledge to identify and interpret building and construction information from plans and specifications in a workplace (or a similar environment) in the context of a construction project including:

- Identify types of plans.
 - Check and confirm that the current version of plans, specifications and amendments is being used.
 - Use the appropriate plans and aspects of drawings for relevant purposes.
 - Confirm that the details on plans comply with the specifications.
 - Identify environmental controls from plans/specifications.
- Read and interpret the plans.
 - Read and confirm standards of work and tolerances from job specifications.
 - Determine building layout, spaces and dimensions from floor plan.
 - Recognise and confirm job specifications located in drawings, notes, and descriptions.
 - Determine internal linings, external cladding and roof materials needed from plans and specifications.
 - Determine material sizes, thickness and construction methods related to three (3) materials for one room from detail drawings for estimates. *(Template available for use HO5 - Cost Estimation)*
 - Apply information from plans to estimation, planning and supervisory tasks.
 - Gain access to the site, achieve orientation and identify services, datum and reduced levels.
 - Locate site features to be removed or retained.
 - Determine the building location from the site plans to actual.
 - Verify plans recognising variations between the plans and the actual site, reporting findings as required.
 - Appropriately communicate with others to be understood.
 - Adhere to site safety requirements, including requirements relating to hazard identification.
- Identify structural details.
 - Identify concrete footing and slab sizes and position and type of reinforcing required.
 - Identify structural load bearing points of the building and compare information from specification.
 - Identify wind bracing and tie-down requirements checking for accuracy against the wind bracing table.
- Identify non-structural details.
 - Identify two (2) provisional sum (PS) and prime cost (PC) items when estimating costs.
 - Locate installation and connection points of services to the building.
 - Identify location of fixtures from plans and details of finishes from specifications.

These tasks may be simulated or real. The Participant is to gather evidence of how they have completed each component of the Practical Task, which is to be submitted with this Practical Assessment sheet. The Observer is to provide detailed comments on the tasks completed by the Participant (on the Observer Comments, overleaf). The Assessor is to verify the Observer's comments, noting their findings in the Assessor Comments (on the back of the Practical Assessment cover page) and provide the assessment outcome.

Resources required:

Work site; plans and specifications, quality documentation; access to the internet/access legislation, current building and construction codes and standards and the NCC. PC applications and software to access CAD. Templates for estimating. HO1 through HO5 available.

Observer details

Name of observer:	Adrian Wyatt
Role of observer (Confirm suitability to sign)	Site manger
Email address of observer	Adrian.wyatt@mcnab.net.au
Signature of observer:	
Date:	14/11/2024

When completing the task, did the Participant:	Tick if satisfactorily completed. Provide comments if left unticked.
1 Identify types of plans	
1.1A. Check and confirm that the current version of plans, specifications and amendments are being used.	☒
1.1B. Use the appropriate plans and aspects of drawings for relevant purposes.	☒
1.1C. Confirm that the details on plans comply with the specifications.	☒
1.1D. Identify environmental controls from plans/specifications.	☒
2 Read and interpret the plan	
1.2A. Read and confirm standards of work and tolerances from job specifications.	☒
1.2B. Determine building layout, spaces and dimensions from floor plan.	☒
1.2C. Determine internal linings, external cladding and roof materials from plans and specifications. (Template available for use HO5 - Cost Estimation)	☒
1.2D. Determine material sizes, thickness and construction methods from detail drawings. (Template available for use HO5 - Cost Estimation)	☒
1.2E. Recognise and confirm job specifications located in drawings, notes, and descriptions.	☒
1.2F. Apply information from plans to estimation, planning and supervisory tasks. (Template available for use HO5 - Cost Estimation)	☒
1.2G. Gain access to the site, achieve orientation and identify services, datum and reduced levels.	☒
1.2H. Locate site features to be removed or retained.	☒
1.2I. Determine the building location from the site plans to actual.	☒
1.2J. Verify plans recognising variations between the plans and the actual site, reporting findings as required.	☒
1.2K. Appropriately communicate with others to be understood.	☒
1.2L. Adhere to site safety requirements, including requirements relating to hazard identification.	☒
3 Identify structural details	
1.3A. Identify concrete footing and slab sizes and position and type of reinforcing required.	☒
1.3B. Identify structural load bearing points of the building and compare information from specification.	☒
1.3C. Identify wind bracing and tie-down requirements checking for accuracy against the wind bracing table.	☒
4 Identify non-structural details	
1.4A. Identify provisional sum (PS) and prime cost (PC) items when estimating costs. (HO5)	☒
1.4B. Locate installation and connection points of services to the building.	☒
1.4C. Identify location of fixtures from plans and details of finishes from specifications.	☒

Observer comments:
Thanks Ric great work