

CPCBC4001

APPLY BUILDING CODES AND STANDARDS TO THE CONSTRUCTION PROCESS FOR CLASS 1 AND 10 BUILDINGS

ASSESSMENT SUMMARY

The assessment activities for *CPCBC4001 Apply building codes and standards to the construction process for Class 1 and 10 buildings* 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 Henderson
Participant signature	

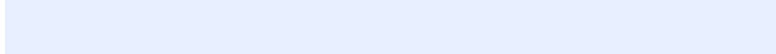
Pre-requisite unit(s) to be achieved and authenticated prior to undertaking assessment

☒ 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 CPCBC4001	Select Date.	☐ Competent	☐ Not Yet Competent

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

- | | |
|--|---|
| ☐ Theory Exam
☐ Workbook
☐ Practical Assessment | ☐ Fire protection inspection checklist
☐ Documentation of design and construction (suitability or evidence of suitability) |
|--|---|

Assessor name	
Assessor signature	

CPCCBC4001

APPLY BUILDING CODES AND STANDARDS TO THE CONSTRUCTION PROCESS FOR CLASS 1 AND 10 BUILDINGS

THEORY EXAM

Participant name	Rex Henderson
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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. Explain why it is important to understand references the NCC makes to Australian Standards.

Answer

The goal of the NCC is to enable the achievement of nationally consistent, minimum necessary standards of relevant safety (including structural safety and safety from fire), health, amenity and sustainability objectives efficiently. The National Construction Code is Australia's primary set of technical design and construction provisions for buildings. As a performance-based code, it sets the minimum required level for the safety, health, amenity, accessibility and sustainability of certain buildings.



Q2. You have been asked to develop a tender proposal for a housing development taking State/Territory. Discuss in depth any legislation and Codes your submission must comply with?

Answer

The most important things to understand are: the specifications so that you know exactly what is being asked for; the contractual obligations and how you will be required to deliver the product or service; when and how the response to the tender is to be delivered; and finally how your tender proposal will be measured



Q3. Describe the listed NCC compliance assessment methods used to determine compliance using a Performance Solution pathway.

Answer

Assessment method	Description
Evidence of suitability	The options for establishing 'evidence of suitability' include: Report issued by a NATA registered testing laboratory. CodeMark or CodeMark Australia Certificate. Report from a professional engineer or appropriately qualified person.
Verification methods	Verification Methods are tests or calculations prescribing a way to comply with the NCC Performance Requirements. They take a number of forms including a test, inspection, calculation, or a combination of these. A Verification Method provides a methodology for assessing a Performance Solution.
Comparison with DTS Provisions	Comparison with the DTS Provisions allows a comparison between the DTS Provision and a proposed Building or Plumbing and Drainage Solution.
Expert Judgement	Expert Judgement is the judgement of a person who has the qualifications and experience necessary to determine whether a Building or Plumbing and Drainage Solution complies with the Performance Requirements.



Q4. Discuss the listed levels found in the NCC Performance Hierarchy.

Answer

Performance Hierarchy	Description
Objectives	Objectives – describe the community expectations for buildings.
Functional statements	Functional Statements – describe how buildings are to achieve the objectives.
Performance requirements	Performance Requirements – outline the mandatory performance level that needs to be met for a building to meet the Objectives and Functional Statements.
Building Solutions	BCA Volume One, pertaining to commercial buildings is a performance based document with mandatory 'Performance Requirements'. The BCA allows for the 'Performance Requirements' to be met via three compliance solutions:



Q5. Why may you need to use a combination of Performance Solutions and Deemed-to-Satisfy (DtS) solutions to comply with the Performance Requirements of the NCC?

Answer

Deemed-to-Satisfy Solution

A DTS Solution follows a set recipe of what, when and how to do something. It uses the DTS Solutions from the NCC, which include materials, components, design factors and construction methods that, if used, are deemed to meet the Performance Requirements.

Performance Solution

A Performance Solution is unique for each individual situation. These solutions are often flexible in achieving the outcomes and encouraging innovative design and technology use. A Performance Solution directly addresses the Performance Requirements by using one or more of the Assessment Methods available in the NCC.

Essentially, if you are building or designing a standard home, it will likely utilise a DTS Solution. If you're building or designing something a little outside the box, a Performance Solutions might be used. Generally, a DTS Solution is the most common pathway to compliance with the NCC.



Q6. The client is showing you the plans for them to build a duplex on their site. Determine what classification would be assigned to this building. Explain your answer.

Answer

Class 2 A building containing 2 or more sole-occupancy units each being a separate dwelling.



Q7. Another client would like to install a swimming pool. Determine what classification would be assigned to this. Explain your answer.

Answer

Class 10b is a structure being a fence, mast, antenna, retaining wall, swimming pool, or the like.



Q8. Explain why the plans for a residential building with landscaping features may have more than one classification.

Answer A building may have parts with different uses. In most cases, each of these parts are classified separately. A building (or part of a building) may also have more than one use and may be assigned more than one classification.



Q9. AS 2870 is referenced in both NCC Volumes One and Two. Respond in the table, what the Australian Standard is referenced in relation to.

Answer

NCC Volume	Referenced in relation to
Volume One	Volume 1 AS 2870 sets out the method for determining the classification of a site and the design and construction requirements for slab on ground, stiffened rafts, waffle slab, strip footings, pad footings and piled footings.
Volume Two	In Volume Two this standard is referenced in several places for the design and construction of slabs and footings for Class 1 and 10 buildings.



Q10. Outline workplace policies and procedures that should be held on-site.

Answer Workplace policies and procedures are often developed and used together. Workplace policies are written statements that help to establish a clear understanding of the behaviour and performance standards expected of employers and employees. Workplace procedures are step-by-step instructions for routine tasks.



Q11. Why is it important to document quality assurance and quality control processes relevant to the build?

Answer

Help alleviate risks, especially regarding the risk of damage or accidents. Ensure the project stays on schedule and remains within budget. Ensure the construction is fit for its intended use and meets the standard set by the client and regulatory bodies.



Q12. Discuss the basic principles of structural design that must be considered in any building design.

Answer

Several key elements are considered in structural design, including: Load-bearing capacity: The ability of a structure to support loads and forces. Stability: The resistance of a structure to overturning, sliding, or collapsing. Strength: The capacity of a structure to resist applied forces without failure



Q13. Provide five conformity assessment pathways that can be used individually, or in combination, to demonstrate product compliance.

Answer

1.

Testing

2.

Inspection

3.

Validation

4.

Verification certification

5.

Accreditation



Q14. Provide the six (6) bushfire attack level ratings that AS 3959 uses to establish the requirements for construction. Explain each rating.

Answer

1.

BAL Low

2.

BAL 12.5

3.

BAL 19

4.

BAL 29

5.

BAL 40,

6.

BAL FZ



Q15. Complete the table below by identifying the type of fire-resisting construction (i.e. Type A, Type B, or Type C) given the following class of building and number of storeys each class of building has.

Answer

Rise in Storeys	Class of building: 2,3,9	Class of building: 5,6,7,8
4 or more	A	A
3	A	B
2	B	C
1	C	C



Q16. Provide a brief explanation of each step of the development of Performance Solutions.

Answer

Steps in Developing Performance Solutions	Brief explanation of each step
Prepare a performance-based design brief	A performance-based design brief (PBDB) is a document that is developed in collaboration with key stakeholders as part of a proposed performance-based design and approval process. When completed, the PBDB becomes the platform upon which the proposed design is constructed. The purpose of the PBDB is to record fundamental activities and outcomes of the performance-based design process, as agreed during key stakeholder negotiations. When the PBDB is finalised, all critical activities and outcomes would have been identified. Consequently, the design process can be commenced with a high degree of confidence that provided the requirements of the PBDB are achieved, the proposed design is likely to be approved. The process of developing a PBDB is typically initiated by the designer through round table discussions amongst key Stakeholders. A need for ongoing discussion is usually determined by the success of initial negotiations and/or the complexity of the proposed solution(s).



Carry out analysis, modelling, or testing	Given that each performance solution is unique, each proposal will require a specific analysis, modelling or testing process relevant to its complexity. In order to assure compliance with the NCC, a performance solution must be evaluated according to one or more of the Assessment Methods outlined in the NCC. Any analytical assessment should be completed as agreed in the PBDB
Collate and evaluate results	During the process of analysis, multiple trials or design scenarios may have been considered and analysed. It is then necessary to collate and evaluate these results and draw conclusions to form the final report. The evaluation needs to take into account the agreed acceptance criteria for the analysis as set out in the PBDB and the results of any uncertainties or sensitivities. Further analysis, modelling and/or testing may be required if the outcomes are not consistent with the agreed acceptance criteria.
Prepare a final report	The final report should clearly demonstrate that compliance with the NCC Performance Requirements agreed in the PBDB has been achieved.

Q17. Discuss two (2) properties, two (2) characteristics and two (2) limitations of concrete when used for buildings.

Answer

	Concrete
Properties	1. Workability - This refers to the ease with which the concrete can be mixed, transported, and placed into its final position. ...
	2. Permeability
Characteristics	1. Concrete is known for its strength
	2. withstand heavy loads and stresses



Limitations	1. low tensile strength
	2. strain capacities

Q18. Discuss three (3) benefits of using glass in buildings.

Answer

1.

Glass can absorb, refracts or transmits light



The use of natural light can lower electricity bills, brighten the rooms of a building, and can also boost the mood of the occupants.

2.

3.

Glass is resistant to weather and can hold up to the effects of the wind, rain, or the sun.

Q19. Respond to the following items regarding zero-energy building.

Answer

Item	Zero energy building
Definition	ZEB definitions. A variety of different terms have been used to characterize very low energy buildings, aiming toward zero energy (ZE) or emissions from a building, whereby any energy consumed within the building is offset by renewable sources, usually at the building site
One (1) technique used in zero energy building	Super-sealing the building envelope is the single most cost-effective measure builders can take to improve the energy efficiency of a zero energy home. Several proven, air-sealing approaches are available.



The procedure in implementing the technique you have identified	Super-Insulate and Super-Seal the Building Envelope, Popular techniques include the use of ADA (airtight drywall) and adhesive attachment of sheathing. The process of super-insulating a home includes sealing the outer wall in double construction, sealing the inner wall, and sealing all other cavities
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CPCCBC4001

APPLY BUILDING CODES AND STANDARDS TO THE CONSTRUCTION PROCESS FOR CLASS 1 AND 10 BUILDINGS

WORKBOOK

Participant name	
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FOR THE PARTICIPANT
Instructions
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Resources required
Pen

FOR THE ASSESSOR
Instructions
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ASSESSOR COMMENTS

As necessary, outline:

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

NOTE

At times, you will be provided with a specific 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.

a)

Access the National Construction Code (NCC) to:

ACTIVITY 1 Briefly explain what the General Requirements of buildings are.

ACTIVITY 2 Briefly explain what the Performance Requirements of buildings are.

ACTIVITY 3 Briefly explain the relationship between a building's Performance Requirements and compliance options (e.g. performance solutions, deemed-to-satisfy solutions).

a) Briefly explain what the General Requirements of buildings are.

General Requirements which cover other aspects of applying the NCC. This includes its interpretation, reference documents, the acceptance of design and construction (including related evidence of suitability/documentation) and the classification of buildings within the NCC.

b) Briefly explain what the Performance Requirements of buildings are.

The performance requirements are the minimum level of performance that that buildings and building elements must meet. The BCA has a dual approach to meeting the performance requirements.

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

A Performance Solution (being the correct term with the introduction of NCC / BCA 2016) now means "a method of complying with the Performance Requirements other than by a Deemed-to-Satisfy Solution." Essentially, the two terms are interchangeable, and now mean the same thing.

**Satisfactory
Outcome**



b)

Provided in the table below are different building elements of Class 1 and Class 10 buildings. For each building element, provide one performance requirement according to the National Construction Code (NCC) Volume 2.

- a) Structural stability and resistance.
- b) Weatherproofing.
- c) Automatic fire warning for occupants.
- d) Personal hygiene and other facilities.
- e) Movement to and within a building.

a) Structural stability and resistance

Structural stability in construction refers to the power of the building to resist any sudden change or force that is its ability to maintain equilibrium under any circumstances. Instability in buildings can have lethal outcomes and must be paid extreme attention to while designing.

b) Weatherproofing

A roof and [external wall](#) (including openings around [windows](#) and doors) must prevent the penetration of water that could cause—

- (A) Unhealthy or dangerous conditions, or loss of amenity for occupants; and
- (b) Undue dampness or deterioration of building elements.

Limitation:

[FP1.4](#) does not apply to—

- a. a Class 7 or 8 building where in the particular case there is no necessity for compliance; or
- b. a garage, tool shed, [sanitary compartment](#), or the like, forming part of a building used for other purposes; or
- c. An [open spectator stand](#) or [open-deck carpark](#).

c) Automatic fire warning for occupants

P2.3.2 Automatic warning for occupants

In a Class 1 building, occupants must be provided with [automatic](#) warning on the detection of smoke so that they may evacuate in the event of a fire to a place of safety.

d) Personal hygiene and other facilities

FP2.1 Personal hygiene facilities Guide

Suitable sanitary facilities for personal hygiene must be provided in a convenient location within or associated with a building, to the degree necessary, appropriate to—

- (a) The function or use of the building; and
- (b) The number and gender of the occupants; and
- (c) The disability or other particular needs of the occupants.

e) Movement to and within a building

P2.5.1 Movement to and within a building

So that people can move safely to and within a building—

- (A) Walking surfaces must have safe gradients; and
- (b) Any stairway or ramp must—
 - (i) have suitable handrails where necessary to assist and provide stability to people using the stairway or ramp; and
 - (ii) Have suitable landings to avoid undue fatigue of users; and
 - (iii) Be suitable for safe passage in relation to the nature, volume and frequency of likely usage; and
 - (iv) Have slip-resistant walking surfaces on ramps, and on stairway treads or near the edge of the nosing.

**Satisfactory
Outcome**



c)

Provided in the table below are different building elements of Class 1 and Class 10 buildings. Describe the how the verification method for each building element of the buildings must be implemented.

a) Structural robustness

Compliance with H1P1(1)(c) is verified for structural robustness if (2) and (3) are complied with. (2) The structure is assessed such that the building remains stable and the resulting collapse does not extend further than the immediately adjacent storeys upon the notional removal in isolation of—any supporting column; or any beam supporting one or more columns; or any segment of a load bearing wall of length equal to the height of the wall. (3) It is demonstrated that if a supporting structural component is relied upon to carry more than 25% of the total structure, a systematic risk assessment of the building is undertaken and critical high risk components are identified and designed to cope with the identified hazard or protective measures chosen to minimise the risk. H1V2 is a means to verify structural robustness of a building or structure in order to meet the requirements of H1P1(1)(c). For further guidance, refer to the ABCB Handbook for Structural Robustness.

b) Room space or height

Compliance with [FP3.1](#) is verified where the height of a [habitable room](#) or space provides an appropriate [activity support level](#) that does not unduly interfere with its intended function.

[Vic FV3.1\(a\)](#)

(b)

For the purposes of [\(a\)](#), the [activity support level](#) must consider the dimensions of—

(i)

doors, [required exits](#), ramps, barriers, stairs and [windows](#); and

(ii)

fixed fittings and services; and

(iii)

fixed and moveable equipment or furniture; and

(iv)

occupant circulation spaces.

**Satisfactory
Outcome**



d)

Access and review the following documents included with this workbook regarding quality management systems of Cascade Peaks Construction:

Handout 2 (HO2) Cascade Peaks Construction Quality System – Beginning Construction

Handout 3 (HO3) Cascade Peaks Construction Quality System – Mandatory Inspections

Once you have accessed and reviewed the documents above, answer the following questions:

- a) Briefly explain why proper procedures for demolition and temporary fencing is needed during construction.
- b) Briefly explain why mandatory inspections are needed during the construction of new buildings.
- c) Identify two (2) tasks that should be done before demolition starts.
- d) Identify two (2) characteristics that temporary fencing around a construction site should have.
- e) Identify two (2) inspections that must be done by a building certifier.
- f) Identify two (2) areas in a building that must be inspected for weatherproofing by a building certifier.

a) Briefly explain why proper procedures for demolition and temporary fencing is needed during construction.

Building and demolition work usually requires using plenty of heavy machinery and equipment. It is therefore important to know how to control demolition works and demarcate zones that should not be accessed by the general public to ensure the safety of not only the workers but the general public as well.

Temporary Fencing

Temporary fencing must be erected at the perimeter of construction sites to isolate any risk during construction, which includes demolition and excavation.

b) Briefly explain why mandatory inspections are needed during the construction of new buildings.

Buildings must be properly inspected by qualified certifier at various stages of its construction to ensure that the building meets relevant standards, local regulations, and requirements of the Building Code of Australia (BCA). These inspections ensure the safety of the users of the building when the building is finally completed.

c) Identify two (2) tasks that should be done before demolition starts.

1. Before demolition is done, the following should be done:
 - a. Apply for necessary demolition permits
 - b. Disconnect existing utilities, such as power, drainage, gas, and water

d) Identify two (2) characteristics that temporary fencing around a construction site should have.

1. Fencing must:
 - a. Cover the full length of the site where the public can access it
 - b. Provide access that ensures that no hazard or that no nuisance gets to pedestrians or traffic

e) Identify two (2) inspections that must be done by a building certifier.

1. The Building Regulation 2021 requires mandatory inspections at the following stages for new houses (single detached class 1a buildings):
 - a. excavation – after excavation of foundation material and before the concrete for the footings, or slab, for the building are poured
 - b. footings – if the building is to have footings—after the placement of formwork and reinforcement for the footings but before the concrete for the footings is poured

f) Identify two (2) areas in a building that must be inspected for weatherproofing by a building certifier.

Damp and weatherproofing Inspections

1. Class 1a- single detached dwelling:
 - a. Weatherproof coating to external face of single-leaf masonry walls
 - b. Flashing to wall/roof junctions

**Satisfactory
Outcome**



e)

Access and review:

Handout 4 (HO4) Cascade Peak Construction's Safety Policies and Procedures

After reviewing the policies and procedures, provide the following information below:

- a) Cascade Peaks Construction's safety policy.
- b) Cascade Peaks Construction's field standard safety clothing and equipment policy.
- c) Four (4) registers that Cascade Peaks Construction should keep regarding the safety of its workers.
- d) Five (5) safety clothing that workers must wear regardless of their task.

a) Cascade Peaks Construction's safety policy.

Safety Policy

Cascade Peak Construction Pty Ltd is committed to creating a workplace environment that is conducive to safety as well as to productivity. To achieve this aim, management and employees will comply with all relevant legislation and safety regulations that are in force both in the office and in the client's work environments.

b) Cascade Peaks Construction's field standard safety clothing and equipment policy.

Field Standard Safety Clothing and Equipment Policy

Cascade Peak Construction puts the safety of its workers before everything else. All workers, therefore, are expected to wear the following safety clothing and have the following equipment within easy reach depending on where they are.

c) Four (4) registers that Cascade Peaks Construction should keep regarding the safety of its workers.

Registers to be kept

Cascade Peak Construction will keep the following registers:

- Phone/contact details – Staff Medical Advisors, Ambulance, Police, etc.
- Accident: Minor and Serious
- Inductions
- Safety training courses attended

d) Five (5) safety clothing that workers must wear regardless of their task.

Field Standard Safety Clothing and Equipment Procedures

All workers must wear the following safety clothing and have the following equipment within easy reach:

All Tasks

- Steel Cap Footwear (boots) – at discretion of safety officer
- Wide Brim Hat
- UV protection sunscreen (supplied)
- Long sleeve shirts buttoned or affixed at wrist.
- Collared shirts

**Satisfactory
Outcome**



f)

Consider the columns in the photo below and answer the following questions:



- What kind of stress is being applied on the columns by the ceiling?
- Describe the deformation that the columns are possibly undergoing due to the stress that the ceiling is applying on them.
- Describe what would happen to the columns if the ceiling were too heavy to be supported.

• What kind of stress is being applied on the columns by the ceiling?

The column will experience a force due to the mass of the roof on top of it and this will create a compressive stress that will cause the marble column to compress a certain distance. The third type of stress is called shear stress.

• Describe the deformation that the columns are possibly undergoing due to the stress that the ceiling is applying on them.

An object or medium under **stress** becomes **deformed**. The quantity that **describes** this **deformation** is called **strain**.

• Describe what would happen to the columns if the ceiling were too heavy to be supported.

If a column was to fail, this would place added load on the next column, this would highly likely cause that column also to fail resulting in a partial or total collapse of the ceiling

**Satisfactory
Outcome**



g)

The handrail of a staircase in a two-storey house located in a termite-risk area broke off while a resident was climbing down the stairs. The handrail was hollow and was infested with termites. Upon further inspection, most of the staircase was constructed from untreated timber, and the project plans made no mention of the fact that the house was made in a termite-risk area.

Given the information above:

- Identify two factors that contributed to the degradation of the house's staircase.
- Identify which Part from the NCC Volume 2 was not properly applied.
- Briefly explain how the identified clause from the Building Code of Australia Volume 2 was not properly applied.
- Identify which Australian standard was not properly applied.
- Briefly explain how the identified Australian standard was not properly applied.
- Identify one practice endorsed by Safe Work Australia was not properly applied.
- Briefly explain how the identified practice endorsed by Safe Work Australia was not properly applied.
- Identify what other defect the house would have considering the deviations of the construction from the code and standard.
- Describe the extent of the work that needs to be done to rectify the termite infestation.

d. Identify two (2) factors that contributed to the degradation of the house's staircase.

- 1 Two-storey house located in a termite-risk area
- 2 most of the staircase was constructed from untreated timber

e. Identify which Part from the NCC Volume 2 was not properly applied.

Part 3.1.4 Termite risk management

f. Briefly explain how the identified Part from the NCC Volume 2 was not properly applied.

3.1.4.2 Requirements for termite management systems
 (a) The requirements of this Part apply where:
 (i) a Class 1 or 10 building is constructed in an area where subterranean termites are known to present a potential risk of attack; and
 (ii) a primary building element of a Class 1 or 10 building is considered susceptible to termite attack.

g. Identify which Australian standard was not properly applied.

Class 1 or 10 building is constructed in an area where subterranean termites are known to present a potential risk of attack

h. Briefly explain how the identified Australian standard was not properly applied.
QLD P2.1.3 a. The risk of <u>primary building elements</u> in a Class 1 or 10 building being damaged by subterranean termites must be adequately minimised by the use of a suitable termite management measure that— i. if it serves a non-temporary Class 1 building, has a design life of at least 50 years; or ii. if it serves a building not specified in (i), has a design life of at least 50 years or the specified design life of the building, whichever is the lesser; or iii. is easily and readily accessible for replenishment or replacement and is capable of being replenished or replaced. b. A termite management measure <u>required</u> by (a), to the degree necessary, must— i. be accessible to enable the installation, maintenance and inspection of the termite management measure to be carried out; and incorporate suitable measures to adequately minimise the risk of the termite management
i. Identify one practice endorsed by Safe Work Australia was not properly applied.
The project plans made no mention of the fact that the house was made in a termite-risk area.
j. Briefly explain how the identified practice endorsed by Safe Work Australia was not properly applied.
The Objective is to safeguard people from injury caused by structural failure
k. Identify what other defect the house would have considering the deviations of the construction from the code and standard.
The fact that most of the staircase was constructed from untreated timber in a termite prone area
l. Describe the extent of the work that needs to be done to rectify the termite infestation.
Eliminate or reduce moisture in and around the home, which termites need to thrive. Repair leaking faucets, water pipes and exterior AC units. Repair fascia, soffits and rotted roof shingles. Replace weather stripping and loose mortar around basement foundation and windows. Chemical termite barriers A durable notice must be permanently fixed to the building in a prominent location, such as in a meter box or the like, indicating— (A) The termite management system used; and (b) The date of installation of the system; and

- (c) Where a chemical is used, its life expectancy as listed on the [appropriate authority's](#) register label; and
- (d) The installer's or manufacturer's recommendations for the scope and frequency of future inspections of termite activity.

Replace of all affected timber and martial with treated or termite safe materials. For the purposes of [\(a\)](#), a [primary building element](#) consisting entirely of, or a combination of, any of the following materials is considered not subject to termite attack:

- (i) Steel, aluminium or other metals.
 - (ii) Concrete.
 - (iii) Masonry.
 - (iv) Fibre-reinforced cement.
 - (v) Timber — naturally termite resistant in accordance with Appendix C of AS 3660.1.
 - (vi) Timber — preservative treated in accordance with Appendix D of AS 3660.1.
- And the project plans made no mention of the fact that the house was made in a termite-risk area so this must be amended.

**Satisfactory
Outcome**



CPCCBC4001

APPLY BUILDING CODES AND STANDARDS TO THE CONSTRUCTION PROCESS FOR CLASS 1 AND 10 BUILDINGS

PRACTICAL ASSESSMENT

Participant name	Rex Henderson
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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.	☐ Workplace ☐ Simulation		☐	☐

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

- ☐ 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. 1.1C.	Specify (✓) where building classifications, criteria requirements and performance solutions were documented: ☐ Workplace Quality document ☐ Quality Assurance Template ☐ Other (please specify): ☐ Document attached as evidence
1.2D.	Specify (✓) who was consulted regarding compliance options: ☐ Project management ☐ Relevant tradesperson ☐ Builder ☐ Supplier ☐ Other (please specify):
1.3C.	Specify existing building checked for compliance with active fire protection requirements: ☐ Is checklist used attached as evidence

CPCCBC4001

APPLY BUILDING CODES AND STANDARDS TO THE CONSTRUCTION PROCESS FOR CLASS 1 AND 10 BUILDINGS

Practical Task 1

Description of task:

The participant must demonstrate the skills and knowledge to apply building codes and standards to the construction process one Class 1 or 10) building or structure project to a maximum of two storeys. Documented evidence of all criteria must be presented (*template (HO1) available for use if required*) The participant must also inspect one existing buildings for fire protection compliance using workplace or created document (*See HO5 for information*). Assessor and observer will be looking for evidence including:

2. Classify building and document findings.
2. Read the plans and specifications to determine the nature of the building, its use and arrangement.
3. Read and correctly interpret relevant Parts of the NCC and related Australian Standards for the project.
4. Determine and document the classification applicable to the building and all ancillary buildings and structures. (*template available- HO1*)
3. Determine construction compliance requirements.
 - a. Determine NCC Performance Requirements relevant to Class 1 and 10, up to two storeys, building projects.
 - b. Determine range of criteria to ensure that construction methods comply with NCC Performance Requirements.
 - c. Identify and document non-conforming construction methods against NCC Performance Requirements. (*template available- HO1*)
 - d. Propose and discuss Performance Solution with design and building and construction professionals. Document consultation. (*template available- HO1*)
 - e. Analyse and apply Assessment Methods to determine compliance with Performance Solution or Deem-to-Satisfy Solution (DTS). (*template available- HO1*)
 - f. Meet the evidence of suitability requirements for building materials and products stated in the NCC.
 - g. Complete documentation demonstrating how the project design and construction will meet NCC requirements (*template available- HO1*) including:
 - i. energy efficiency
 - ii. damp and weatherproofing
 - iii. fire safety
 - iv. health and amenity
 - v. structure
 - vi. safe movement and access
 - vii. ancillary provisions
4. Determine fire protection requirements.
 - a. Read the NCC and other legislative requirements for passive and active fire control elements in buildings.
 - b. Write or obtain a checklist describing the level of fire resistance required for the construction of various buildings.
 - c. Inspect one existing building for compliance with passive and active fire protection requirements.

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:

Construction plans, drawings and specifications for one (1) building Class 1 or 10) building or structure project to a maximum of two storeys; workplace quality policies and procedures; technology to access building and related industry codes, standards and manufacturer product information and materials specifications; Technology to access the NCC and current relevant Acts and Regulations. PPE as required. Documentation of design and construction (suitability or evidence of suitability) (*template available- (HO1)*). Fire protection checklist.

Practical Task 1	
Observer details	
Name of observer:	
Role of observer (Confirm suitability to sign)	
Email address of observer	
Signature of observer:	
Date:	Select Date.

When completing the task, did the Participant:	Tick if satisfactorily completed. Provide comments if left unticked.
1 Classify building	
1.1A. Read the plans and specifications to determine the nature of the building and ancillary provisions, use and arrangement.	☐
1.1B. Read and correctly interpret relevant Parts of the NCC and related Australian Standards for the project.	☐
1.1C. Determine and document the classification applicable to the building and all ancillary buildings and structures. <i>(attach evidence -template available- HO1)</i>	☐
2 Determine construction compliance requirements	
1.2A. Determine NCC Performance Requirements relevant to Class 1 and 10, up to two storeys, building projects. <i>(attach evidence -template available- HO1)</i>	☐
1.2B. Determine range of criteria to ensure that construction methods comply with NCC Performance Requirements. <i>(attach evidence -template available- HO1)</i>	☐
1.2C. Identify and document non-conforming construction methods against NCC Performance Requirements. <i>(attach evidence -template available- HO1)</i>	☐
1.2D. Propose and discuss Performance Solution with design and building and construction professionals. Document consultation. <i>(attach evidence -template available- HO1)</i>	☐
1.2E. Analyse and apply Assessment Methods to determine compliance with Performance Solution or Deem-to-Satisfy Solution (DTS). <i>(attach evidence -template available- HO1)</i>	☐
1.2F. Meet the evidence of suitability requirements for building materials and products stated in the NCC.	☐
1.2G. Complete documentation demonstrating how the project design and construction will meet NCC requirements for energy efficiency <i>(attach evidence -template available- HO1)</i> .	☐
1.2H. Complete documentation demonstrating how the project design and construction will meet NCC requirements for damp and weatherproofing <i>(attach evidence -template available- HO1)</i> .	☐
1.2I. Complete documentation demonstrating how the project design and construction will meet NCC requirements for fire safety <i>(attach evidence -template available- HO1)</i>	☐
1.2J. Complete documentation demonstrating how the project design and construction will meet NCC requirements for health and amenity. <i>(attach evidence -template available- HO1)</i> .	☐
1.2K. Complete documentation demonstrating how the project design and construction will meet NCC requirements for structure. <i>(attach evidence -template available- HO1)</i> .	☐
1.2L. Complete documentation demonstrating how the project design and construction will meet NCC requirements for safe movement and access. <i>(attach evidence -template available- HO1)</i> .	☐
1.2M. Complete documentation demonstrating how the project design and construction will meet NCC requirements for ancillary provisions. <i>(attach evidence -template available- HO1)</i> .	☐

When completing the task, did the Participant:	Tick if satisfactorily completed. Provide comments if left unticked.
3 Determine fire protection requirements.	
1.3A. Read the NCC and other legislative requirements for passive and active fire control elements in buildings.	☐
1.3B. Write or obtain a checklist describing the level of fire resistance required for the construction of various buildings.	☐
1.3C. Inspect one existing building for compliance with passive and active fire protection requirements (<i>attach checklist as evidence</i>)	☐

