

CPCBC4006

SELECT, PROCURE AND STORE CONSTRUCTION MATERIALS FOR BUILDING AND CONSTRUCTION PROJECTS

THEORY EXAM

Participant name	
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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 response 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	
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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. Discuss how you ensure you have located the correct plans and specifications when determining materials needed for a building job.

Answer

Should reflect: locate the plans and specifications attached to the building contract, ensure these are the correct and latest version of the plans and specifications. Ensure that all numbered pages correspond with each other and that there are no missing versions of documents.

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Q2. Clarify what codes and standards you need to read to confirm the materials specified are suitable for the proposed construction project.

Answer

Should reflect: The National Construction Code (NCC), may include State variations such as the Queensland Development Code (QDC) You must comply with the Australian Standards specified in the NCC.

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Q3. How do you assess the suitability of properties of specified materials for the building project in the region?

Answer

Should reflect: determine the region applicable to the project and the climate zone applicable to the region. Determine the type of construction whether A, B or C. Access NCC and all specified Australian standards to determine material requirements and suitability. You can access the technical design guides in the 'Wood Solutions' website for further clarification on timber uses in specific circumstances.

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Q4. Provide a brief explanation of the listed NCC compliance assessment methods used to determine compliance using a Performance Solution pathway.

Answer

Assessment method	Description
Evidence of suitability	e.g. requires evidence, to support claims that a material, form of construction or design meets the Performance Requirements or DTS Provisions
Verification methods	e.g. Tests, inspections, calculations or other methods, which determine whether a proposed building or plumbing and drainage solution complies with the relevant Performance Requirements. Verification Methods are not limited to using those in the NCC. Another Verification Method may be used if the appropriate regulatory authority is satisfied that it establishes compliance with the NCC.
Comparison with DTS Provisions	e.g. demonstrated comparison between the DTS Provision and a proposed building or plumbing and drainage solution. It must demonstrate to the appropriate authority that the solution complies in an equivalent or superior way to the DTS Provisions, to be deemed to meet the relevant Performance Requirements.
Expert Judgement	e.g. the opinion of a technical expert may be accepted provided the person has the qualifications and experience necessary to determine whether a building or plumbing and drainage solution complies with the Performance Requirements. Applied when physical criteria are unable to be tested or modelled by calculation.



Q5. What information do the specifications give you regarding materials to be used?

Answer

Should reflect: Specifications provide the details for the work that needs to be completed. It specifies information on the materials, quality and scope of work, and installation process in relation to the construction project being undertaken. Construction specifications also detail the quality and quantity of the building materials needed.

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Q6. Which legislation details the requirements relevant for building work in the state/territory where you are based?

Answer

Should reflect two (2) of: e.g. Building Act Qld (may include year); Building regulation Qld (may include year); Queensland Development Code. National Construction Code

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Q7. How can you ascertain whether materials are compatible with one another?

Answer

Should reflect but is not limited to: Manufacturers often provide warnings regarding materials their product is not compatible with, or the SDS for material may provide advice. Testing may also be required and a number of Australian Standards are available relating to different products and testing.

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Q8. What are structural insulated panels (SIPs)?

Answer ☐ Should reflect: An alternative to traditional timber framed construction that functions as the structural element for walls, roofs, and suspended floors. They consist of two outer layers of Oriented Strand Board (OSB) sandwiched around an Expanded Polystyrene (EPS) core.

Q9. Why are SIPs a good sustainable alternative to traditional timber framed construction? Give two (2) reasons.

Answer ☐
1. Should reflect but is not limited to: Reduction of on-site construction time

2. Minimises waste

Q10. What makes a SIP building sustainable?

Answer ☐ Should reflect but is not limited to: A SIP building uses less energy to heat and cool, reduces constructional waste and allows for better control over indoor environmental conditions.

Q11. Mud bricks are an alternative material product used in building and construction. Briefly explain what makes it sustainable.

Answer ☐ Should reflect but is not limited to: May have the lowest environmental impact out of all other construction materials since they require very little energy to manufacture. Moreover they have good fire and vermin resistance, durability and moisture resistance, and provide non-toxic and breathable walls.

Q12. What makes straw bales a sustainable building product?

Answer

Should reflect but is not limited to: Straw bales are made from waste product of grains by farmers therefore promoting both sustainability and support to farmers. Straw bales also provide excellent insulation and thick walls that adds to the aesthetic value of the building.

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Q13. Why is hemp an environmentally sustainable material used in building and construction?

Answer

Should reflect but is not limited to: Hemp absorbs and stores carbon which significantly helps the environment. Hemp is also thermally efficient and moderates internal humidity.

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Q14. Discuss two (2) different environmental effects that timber can succumb to.

Answer

1. Examples may include but is not limited to: Rotting through moisture
 2. exposure; Termite attack; Borer attack
-

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Q15. Discuss methods/products that can be used to protect or preserve the timber from the environmental effects mentioned in the previous answer.

Answer

Should discuss materials such as: Coal tar, chemical slats, oil paints, creosote oil, the use of solignum paints, termite shields and barriers or ASCU.

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Q16. Discuss two (2) different environmental effects that steel can succumb to.

Answer

1. May include but is not limited to two (2) of: Oxidation/rusting, Galvanic
2. corrosion, Hydrogen embrittlement, Stress corrosion cracking; Corrosion

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Q17. Discuss methods/products that can be used to protect or preserve the steel from the environmental effects mentioned in the previous answer.

Answer

Should discuss materials such as: galvanising, wet coating, powder coating,
cathodic protection, duplex system, spray-applied fire-resistive material
(SFRM)

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Q18. Provide three (3) differences between ferrous and non-ferrous metals.

Answer

1. Should reflect but is not limited to three (3) of: Ferrous metals are commonly
less expensive than non-ferrous metals.
2. Ferrous metals are magnetic vs non-ferrous metals; Non-ferrous metals are
easily recyclable whereas ferrous metals require detailed processes.
3. Ferrous metals are more prone to corrosion or rust due to the inclusion of
iron where non-ferrous are more rust resistant

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Q19. Discuss the key environmental impacts of construction materials.

Answer

Should reflect but is not limited to: Waste and waste disposal is one of the
key environmental impacts of construction materials and further efforts must
be made in reuse and recycling. Steel has very high embodied energy and
is one of the most environmentally harmful construction materials when
measured by weight. Concrete has a low recycling rate and utilises more
natural resource resulting with high resource depletion.

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Q20. Discuss how the use of natural materials such as natural stone or timber surfaces such as bench tops is affected by tolerance standards.

Answer

Should reflect: Natural materials must meet tolerance standards however blemishes and variations in pattern and colour that are natural characteristics are not considered issues for re-work. Cracking, displacement, pitting or similar blemishes in natural stone, marble or similar materials are defects if they are caused by the contractor and can be seen from a normal viewing position these must be replaced according to the standards and tolerances relevant to the state.



Q21. Discuss when a joint in a benchtop is considered defective in your state or territory, regardless of whether the benchtop is timber, laminate or natural stone.

Answer

Should reflect: Qld - Within the first 12 months from completion of the work, bench tops of timber, laminate, natural stone or similar materials are defective if they have joints that are not uniform, close-fitted, aligned and in the same plane. These requirements also apply to vertical surfaces of similar material and finish. Joints are defective if they are not sealed or flush-filled with a suitable flexible sealant of matching colour



Q22. Discuss what structural adequacy means when referring to construction materials.

Answer

Should reflect: Structural adequacy means the ability of the building components and materials to withstand or resist vertical load forces exerted by the building to these materials, in addition to the materials' own weight.



Q23. Clarify some determinations you must make to ensure a construction material is deemed safe.

Answer

Should reflect but is not limited to: A construction material is deemed safe when it does not pose any health or safety threats to the builders (during construction) and occupants of the building (once operational). Therefore, you should consider the safety, or hazard-free, aspects or features of materials in selecting those appropriate to the project. For example, if possible, solvent-based paints should not be used as they release toxic substances into the air that may cause respiratory damage

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Q24. Discuss why you might suggest refurbishing a building using fire-resistant building materials where possible.

Answer

Should reflect but is not limited to: The use of fire-resistant materials such as concrete, bricks and fire-resistant glass is an effective way to slow the spread of flames and reduce the amount of smoke created if a fire reaches the property. The use of the correctly rated fire-resistant materials will bring the building up to NCC requirements.

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Q25. 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	Type A	Type A
3	Type A	Type B
2	Type B	Type C
1	Type C	Type C

☐

Q26. Describe how you would monitor alternative forms of construction to ensure compliance.

Answer

Should reflect but is not limited to: Provide alternative procedures, clarify changes during pre-start and documented. Ensure that procedures are followed exactly and confirm materials used meet requirements, organise inspection



Q27. Discuss what criteria you must meet when selecting the building materials.

Answer

Should reflect but is not limited to: Your choice of the best construction material to purchase must not only depend on one criterion. The safety, fire resistance, suitability, serviceability, durability and cost-effectiveness of a material must all be considered in selecting the construction materials for use in the project. It may be difficult to find construction materials that will fit the bill, so it is important to distinguish which among these criteria are the non-negotiable ones for your construction project and work your way from there.



Q28. Discuss which professionals you might consult regarding materials to be used for the construction project.

Answer

Should reflect but is not limited to: Professionals can provide expert advice in selecting materials needed for the construction project. Manufacturers provide material specifications needed to confirm compliance and suitability. Architects provide information regarding materials selected. Cost consultants provide advice on the procurement route or strategy. The engineer may be consulted to provide structural integrity and durability of materials advice.



Q29. Describe what is meant by procuring materials for the construction project.

Answer

Should reflect but is not limited to: In building construction, material procurement is the process of acquiring and securing the necessary materials required to construct a building or structure. Procuring materials involves selecting and contracting with the appropriate suppliers whom you will acquire the materials from. Once you have a list of your potential suppliers, ask them for written quotations, and if possible, a sample of the materials you would be needing. This information will allow you to effectively evaluate suppliers and determine which can fit your needs.



Q30. Clarify some of the limitations and effects of transportation on materials and components, and what you should check for on delivery to the site.

Answer

Should reflect but is not limited to: Materials may be damaged during transportation, it is important to check that not only the correct (as ordered) materials are delivered to the site but also that these materials and components have not received any damage during transport to the site. Transport issues including traffic conditions, weather and cost to transport will all contribute to the timely and safe delivery of materials to the site. When materials arrive on the site, they must be checked to confirm that they confirm with the order and site requirements, they must be checked for any damage and that the quality and quantity of materials ordered has arrived at the site.



Q31. What action can you take to ensure materials are transported and delivered as required.

Answer

Should reflect: Regular contact with the supplier to confirm and update the delivery schedule, share concerns and expectations and communicate with them when issues appear.



Q32. Discuss what must be considered when allocating storage areas for delivered materials.

Answer

Should reflect but is not limited to: Storage areas are usually near the delivery area and an area that workers have easy access to. Storage areas must have ease of access but also be organised with safety in consideration such as safe handling of the materials.



Q33. Discuss methods that are applied on building construction sites to ensure the safe handling of materials and construction components.

Answer

Should reflect safe handling methods including: mechanical handling, safe lifting techniques, dual lifting.



Q34. Describe processes that must be undertaken when materials and components are delivered to the site.

Answer

Should reflect but is not limited to: Check that delivered materials match the delivery docket and the order. Undertake visual inspection of the materials and products to ensure no defects are present and that no damage has occurred during transport. Any major defective or damaged parts must be returned to the supplier and replaced. Certain materials such as concrete may need to be tested before use. Once materials and components have been confirmed as suited to requirements, these must be safely handled and transferred to the allocated storage locations in preparation for use. Clear and concise records of actions must be kept, both in the daily diary and for the supplier.



Q35. Describe what a non-conformance report is used for.

Answer

Should reflect but is not limited to: A non-conformance report details the item or items that are to be reported as not meeting the standards. The non-conformance report is usually issued by the project consultant or site manager. Your report must provide clear and substantial evidence and information, such as from inspection reports and testing results, to support your claim. Once the appropriate corrective actions are taken, the report will be closed and will serve as basis for further training either on your end or on the suppliers'



Q36. Provide a brief explanation of the operational and functional features of the following materials handling equipment.

Answer

Materials handling equipment	Operational and functional features
Trucks	e.g. Used for transport utilising either flat-bed or tip-tray capability may also arrive with a trailer attached – must be provided with suitable turning space at site. Licences required to operate.
Cranes	e.g. May be mobile cranes with stabilisers needed for lifting and placing components, may also be attached to flatbed trucks for lifting and placing components on delivery. Licences required depending on capacity and type of crane.
Pallet lifter	e.g. Designed to move pallets to closer locations and minimise manual handling. Designed to lift, move and lower pallets of material
Wheelbarrow	e.g. Used to transfer materials on site. Requires manual handling techniques and may be required to transfer across uneven surfaces. Recommendations include not to overfill.



Q37. Discuss the digital technology and applications you use to access, extract, integrate and compile information relevant to the building project.

Answer

Should reflect but is not limited to: project and construction management software are used to help consolidate and disseminate project data and information quickly, including materials and inventory management tools. Access to the internet is needed to confirm NCC and legislative requirements. Programs such as word and excel are used to compile information and to document requirements and processes. Specific software is available to document and record all processes and records needed during the construction process.



CPCBC4006

SELECT, PROCURE AND STORE CONSTRUCTION MATERIALS FOR BUILDING AND CONSTRUCTION PROJECTS

WORKBOOK

Participant name	
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FOR THE PARTICIPANT
Instructions
ANSWERS - 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 Provider. Additional time may be allowed upon negotiation with the Assessor. - You must complete all questions unless instructed by the Assessor. If other personnel, they 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. - If any written responses 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.

ACTIVITY 1

Research each of the following materials and respond to the following:

- Identify one (1) property of each building material.
- Briefly explain the application of the building material.
- Identify one (1) limitation of the building material.

Cement

a) Property of the material.

e.g. response must include one of the following:

- Fineness of cement
- Bulk density
- Specific gravity

Other responses not listed above are also acceptable, as long as that they are properties of cement.

b) Application of the material.

e.g. Cement is mainly used as a binder in concrete and mortar.

c) Limitation of the material.

e.g. One of the following:

- Low tensile strength
- Low toughness
- Long curing time

Other responses not listed above are also acceptable, as long as that they are limitations of cement

Ceramics

a) Property of the material.
e.g. one of the following: -High hardness -High elastic modulus -Low ductility Other responses not listed above are also acceptable, as long as that they are properties of ceramics.
b) Application of the material.
e.g. Ceramics are mainly used to make pottery, bricks, tiles, cements, and glass.
c) Limitation of the material.
e.g. One of the following: -Very brittle -Poor tensile strength -Difficult to shape and machine Other responses not listed above are also acceptable, as long as that they are limitations of ceramics.

Concrete

a) Property of the material.
e.g. response must include one of the following: -High mechanical strength -High durability -Good porosity and density Other responses not listed above are also acceptable, as long as that they are properties of concrete.
b) Application of the material.
e.g. Concrete is used extensively in buildings, bridges, roads, driveways, paths and dams, as well as pipes and drains.
c) Limitation of the material.
e.g. One of the following: -Expensive -Very brittle -Low resistance to impact Other responses not listed above are also acceptable, as long as that they are limitations of glass.

Glass

a) Property of the material.
e.g. One of the following: -Very low thermal conductivity -Good electrical insulation -High transparency Other responses not listed above are also acceptable, as long as that they are properties of glass.
b) Application of the material.
e.g. Glass is commonly used in windows, insulation, reinforcement structures, mirrors, and partitions.
c) Limitation of the material.
e.g. One of the following: - Expensive -Very brittle -Low resistance to impact Other responses not listed above are also acceptable, as long as that they are limitations of glass.

Plaster

a) Property of the material.
e.g. response must include one of the following: - Good adhesion -Good cohesion -Weather resistant Other responses not listed above are also acceptable, as long as that they are properties of plaster.
b) Application of the material.
e.g. Plaster is used for coating, protecting and decorating internal walls and ceilings
c) Limitation of the material.
e.g. One of the following: - Difficult to install - Difficult to repair - Expensive Other responses not listed above are also acceptable, as long as that they are limitations of plaster.

Portland cement mortar

a) Property of the material.
e.g. One of the following: -High compressive strength -Quick drying -High durability Other responses not listed above are also acceptable, as long as that they are properties of Portland cement mortar.
b) Application of the material.
e.g. manufactured to produce masonry mortar to be used in brick, block, and stone masonry construction
c) Limitation of the material.
e.g. One of the following: -Cannot be used alone -Designed to be mixed with sand and water -Adding hydrated lime is not required or recommended -Contains silica Other responses not listed above are also acceptable, as long as that they are limitations of Portland cement mortar.

Lime mortar

a) Property of the material.
e.g. response must include one of the following: -Reduces potential for water penetration -Ability to withstand normal movement without excessive cracking or debonding -Improves frost resistance -Enhances general durability Other responses not listed above are also acceptable, as long as that they are properties of lime mortar
b) Application of the material.
e.g. primarily used in conserving buildings originally built with lime mortar but may also be used as an alternative to Portland cement mortar.
c) Limitation of the material.
e.g. One of the following: -Hardens slowly -Should not be used below 5 °C (41 °F) -Does not adhere as strongly to masonry as Portland cement mortar Other responses not listed above are also acceptable, as long as that they are limitations of lime mortar.

Paint

a) Property of the material.
e.g. One of the following: -Quick drying -Corrosion resistant -Water resistant -Heat resistant Other responses not listed above are also acceptable, as long as that they are properties of paint.
b) Application of the material.
e.g. used in waterproofing, improving surface appearance, improving surface durability, and provides surface protection against solar radiation, rain, insects and other external factors.
c) Limitation of the material.
e.g. One of the following: -Tends to run and/or curtain -Must be periodically recoated -Gets dirty easily Other responses not listed above are also acceptable, as long as that they are limitations of paint.

Epoxy

a) Property of the material.
e.g. response must include one of the following: -Excellent adhesion to various substrates -Effective electrical insulation -Chemical and solvent resistant Other responses not listed above are also acceptable, as long as that they are properties of epoxy.
b) Application of the material.
e.g. Epoxy is usually used in adhesives, plastics, paints, coatings, primers and sealers, and flooring
c) Limitation of the material.
e.g. One of the following: -Costly maintenance -Emits strong toxic fumes -Takes long to harden completely Other responses not listed above are also acceptable, as long as that they are limitations of epoxy.

**Satisfactory
Outcome**



ACTIVITY 2

Research each of the following building products and respond to the following:

- Identify properties of each building material.
- Briefly explain the application of the building product.
- Identify limitations of the product.

Sawn timber

a) Properties

e.g. response may include:

- Elasticity allows sawn timber to absorb and dissipate shock loads
- Tension resistant

Other responses not listed above are also acceptable, as long as that they are properties of sawn timber..

b) Application of the product.

e.g. Sawn timber can be used in small structural framing, general carcassing, door panels, joinery, and studs and joists.

c) Limitations.

e.g.-Restrictions on load capacity

- Low thermal conductivity
- Poor sound insulation

Other responses not listed above are also acceptable, as long as that they are limitations of sawn timber

'Massive' or cross laminated timber (CLT)

a) Properties

e.g. response may include:

- High density
- Good thermal properties

Other responses not listed above are also acceptable, as long as that they are properties of cross-laminated timber

b) Application of the product.

e.g. usually used in floor slabs, beams, columns, and shear and load bearing walls

c) Limitations.

e.g. One of the following:

- Expensive
- Less long-term flexibility
- Poor sound insulation

Other responses not listed above are also acceptable, as long as that they are limitations of cross-laminated timber.

Steel framing

a) Properties

e.g.
 -High strength
 -Relatively low weight
 -Ability to span large distances
 Other responses not listed above are also acceptable, as long as that they are properties of steel framings.

b) Application of the product

e.g. Steel framings are usually used for large simple structures, such as garages, large agricultural buildings, warehouses and high-rise buildings.

c) Limitations

e.g.:
 -Highly efficiency in conducting heat
 -Reduced flexibility on site
 -Cannot work by itself, needs support such as drywall, sheathing, insulation, etc.
 Other responses not listed above are also acceptable, as long as that they are limitations of steel framings.

Asphalt shingles- roofing

a) Properties

e.g.
 -Fire resistance
 -Recyclable-High degree of toughness
 Other responses not listed above are also acceptable, as long as that they are properties of asphalt shingles.

b) Application of the product

e.g. Usually applied in common house roof systems

c) Limitation of the material

e.g.
 -Short lifespan
 -Vulnerable to storm damage
 -Vulnerable to heat damage
 -Vulnerable to strong winds
 Other responses not listed above are also acceptable, as long as that they are limitations of asphalt shingles roofing.

Plasterboard

a) Properties

e.g.
 -Fire resistant
 -Water resistant
 -Recyclable
 Other responses not listed above are also acceptable, as long as that they are properties of plasterboard.

b) Application of the product

e.g. Plasterboards should be attached to a frame which is either metal or timber. It is commonly installed in partitions, ceilings, or wall linings.

c) Limitations

e.g.:
 -Very brittle
 -Prone to cracks and breaks
 -Paper plasterboard will not tolerate flooding
 Other responses not listed above are also acceptable, as long as that they are limitations of plasterboard.

Structural steel

a) Properties

e.g.-High tensile strength
 -High hardness
 -High degree of toughness
 Other responses not listed above are also acceptable, as long as that they are properties of structural steel.

b) Application of the product

e.g. Usually used in construction for channels, beams, plates, and angles.

c) Limitation of the material

e.g. -Susceptible to corrosion
 -High expansion rate with changing temperatures
 -Loses its properties in high temperatures
 Other responses not listed above are also acceptable, as long as that they are limitations of structural steel.

**Satisfactory
Outcome**



For the following activity, name the state/territory that you wish to examine.

State / Territory	e.g. Queensland
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ACTIVITY 3

Identify current work health and safety legislation and related documentation such as codes of practice that will be relevant to your chosen workplace, and where such documentation can be found:

- Name and location of Legislation.
- Name and location of Regulation.
- Information relating to the hierarchy of controls.
- Information related to hazardous manual tasks.
- Information related to mechanical material handling.
- Information regarding licensing and competency for operating mechanical material handling equipment.

a) Name and location of Legislation (Commonwealth or State)

Work Health and Safety Act 2011 (Qld) found at www.legislation.qld.gov.au

b) Name and location of Regulation

Work Health and Safety Regulation 2011 (Qld) found at www.legislation.qld.gov.au

c) Information relating to the Hierarchy of controls

Located in 'How to manage work health and safety risks Code of Practice 2021'

d) Information related to hazardous manual tasks

Located in 'Hazardous manual tasks Code of Practice 2021'

e) Information related to mechanical material handling

Located in the 'Guide to machinery and equipment safety'

f) Information regarding licensing and competency for operating mechanical material handling equipment.

WorkSafe Queensland website

**Satisfactory
Outcome**



ACTIVITY 4

Access the NCC via the internet to locate the requirements applicable to a building development in the Brisbane area, containing 6 sole-occupancy units, two (2) on each level, each being a separate dwelling.

This building includes one (1) basement level designated for car parking.

The proposed building structure requires reinforced concrete floors and columns.

Document your findings or where in the NCC the information can be located.

Building Description

Classification

Class 2 residential units

Class 7a Car park

Rise in Storeys

The building has a rise of three (3) storeys.

Number of Storeys

The development will contain four (4) storeys.

Type of construction

Type A construction throughout

Climate Zone and description

Zone 2 - Warm humid summer, mild winter

Fire resistance and stability

Locate fire resistance information

Detailed in Volume One Part C2, C2D2 for Type A construction.
Where lightweight fire rated construction is proposed for walls, the system must comply with Specification 6 of NCC and the manufactures tested specification.

Compartmentation and fire separation

e.g. Each sole occupancy unit within the building must be separated by construction achieving an FRL of not less than 90/90/90 for load bearing or -/60/60 for non-load bearing.

The car parking areas must be separated from the residential portion of the building by construction having an FRL not less than 120/120/120.

The stair and lift shafts must be constructed with an FRL not less than 120/120/120 to the parking levels, and 90/90/90 to residential levels.

Fire hazard properties of materials, assemblies, fixtures and linings

e.g. Must comply with Specification 7 of the NCC.

Material requirements

Reinforced concrete requirements relative to Australian Standards

e.g. NCC Housing Provisions Part 4.2.10 and 4.2.11
Concrete must be manufactured to comply with AS 3600
Materials used for reinforcing steel must comply with AS 2870

Glazing requirements specifically for windows, sliding doors with frames and balconies

e.g. NCC 8.3 Glass
Design and construction in accordance with AS 2047
glass is of a type recognised by AS 1288; and safety glazing is legibly marked in accordance with AS 1288; and
glazing used in barriers complies with AS 1288
building is located in an area with a design wind speed of not more than N3

**Satisfactory
Outcome**



CPCCBC4006

SELECT, PROCURE AND STORE CONSTRUCTION MATERIALS FOR BUILDING AND CONSTRUCTION PROJECTS

PRACTICAL ASSESSMENT

Participant name	
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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 assisted 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 achieved.
 - For an 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		☐ 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.	Specify what the plans and specifications read relate to: e.g. building and construction of one residential home in BCC
1.1A. 1.1A.	Specify codes and construction requirements reviewed relevant to the site location and type of building reviewed: e.g. NCC, Qld construction code, BCC
1.1E. 1.1F.	Specify how the environmental impact of the materials was evaluated: e.g. read manufacturer specifications and other reference material regarding material technologies, sustainability and environmental efficiency.
1.1G. 1.1H.	Specify how impact of allowable tolerances on the conversion of naturally occurring materials was determined: e.g. read standards and tolerances guide from QBCC
1.2H. 1.2I.	Specify how expert advice from manufacturers, architects, designers and engineers was achieved: e.g. read documents/websites from manufacturer/supplier, face to face meeting with architect and email communication with structural engineer.
1.2J. 1.3A. 1.3B. 1.3C. 1.3D. 1.3E. 1.3I.	Specify action taken when non-compliant or damaged materials or components were delivered: e.g. non-compliant items not accepted following delivery inspection, returned and replacement demanded. Report to management and supplier

ASSESSOR COMMENTS: PRACTICAL TASK 1	
1.3F.	Specify how on site storage location for materials was determined: e.g. according to site plan with ease of access for delivery and collection for use. Marked out on site
1.3G. 1.3H.	Specify workplace safety requirement instructed to others when storing and accessing stored materials and components: e.g. hazardous manual tasks; hierarchy of controls; mechanical material handling; licensing and competency for operating mechanical material handling equipment
1.3J.	Specify records maintained: e.g. records of deliveries; damaged and inferior materials; variations to specified materials.