

## Commercial Building Inspector - B2

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EXAM ID	CATEGORY	STATE	TYPE	CODE YEAR
B2	Commercial Inspector National/All National Certification			2021 ▾

- [INFO](#)
- [OUTLINE](#)

### SCOPE

A Commercial Building Inspector will be responsible for performing inspections of structures to determine compliance with the various Building Codes and Standards adopted by their jurisdiction. At this level of certification, the Inspector shall be able to inspect commercial structures of any size or occupancy.

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### REFERENCES

ACI 318-19: Building Code Requirements for Structural Concrete and Commentary	\$254.00
2021 International Building Code® (Soft Cover)	\$192.00
Concrete Manual: Concrete Quality and Field Practices 2021 IBC and ACI 318-19	\$108.00

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### COMMENT

This exam uses **EITHER** the Concrete Manual or ACI -318; you do not need to purchase both.

Any copyrighted, bound book may be used at a test site. Exam questions will only come from the listed approved references, and exam appeals may only be based on the listed approved references.

QUESTIONS 80  
TIME LIMIT 3.5 Hours  
OPEN BOOK? Open

AVAILABLE METHODS  
Proctored Online Testing

\$290.00

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## **General Administration**

**6%**

### Project Administration

Verify that project information is provided and is adequate. Verify that the project is designed by approved persons when required, and has required 1% approvals. Verify that products not detailed in the building code are approved by the building official and installed according to their listing. Verify that the required approved plans and specifications are available when required and retained by the building official for the period required.

### Public Information and Legal

For new and existing structures, answer questions about the need for permits and inspections, including special inspections and structural observations, general code compliance of designs, procedures, and materials. Communicate, issue, and maintain inspection reports, correction notices, stop work orders, and data for the issuance of the certificate of occupancy. 1%

### Plan Reading

Read plans to verify the project conforms with the code, approved plans, and construction documents. 4%

## **Building Planning**

**20%**

### Fire Resistance-Rated Construction

Inspect fire resistance-rated construction for compliance with the code and tested assembly requirements. 5%

### Building Location

Inspect the construction site to see that the building or structure location is in compliance with the requirements of the local ordinances, fire separation regulations, fire access, and the approved site plan. Verify that final grade will provide the required slope away from the footing or foundation wall. Verify finish floor elevation in flood-hazard areas for compliance with local and federal requirements. 2%

## **General Administration**

**6%**

### Interior Environment

Verify that the actual and allowable floor area calculations are correct. Inspect for compliance of minimum room dimensions and openings. Verify compliance of lighting and ventilation systems.

1%

### Occupancy Classification and Type of Construction

Verify or determine the occupancy classification, provisions for special uses, and type of construction requirements, including individual elements or components.

5%

### Safeguards During Construction

Assure that the precautions are taken for the safety and sanitation at the construction site.

1%

### Accessibility

Inspect buildings to assure elements are accessible and usable by individuals with physical disabilities as specified by the code, approved plans, and construction documents.

2%

### Material Quality

Inspect that materials are in compliance with the markings, standards, and the materials' characteristics.

2%

### Interior Coverings

Verify that floor, wall, and ceiling coverings are correct types and thicknesses and are correctly supported and fastened.

2%

## **Footings and Foundations**

**8%**

### Footings

Verify that the building site's soil load-bearing capacity and stability complies with approved plans or reports. Verify that footings are laid out with correct depth, size, and setbacks, and that footings extend below the frost line. Inspect below-grade work for compliance with the code.

3%

## **General Administration**

**6%**

### Stepped Footings and Special Foundations

1%

Verify that stepped footings and specialized foundations are constructed per the approved plans or code.

### Piles and Piers

1%

Verify that piles and piers are correctly supported and anchored, and that wood members are protected against insects and decay.

### Foundation Walls

Verify that foundation stem walls are correctly sized and have sufficient height above grade. Verify that foundation wall reinforcement, anchor bolts, and fasteners are correct type, size, and grade and are placed per approved plans. Verify that foundation dampproofing and waterproofing is installed where required. Verify maximum unbalanced fill height. Verify that foundation walls are properly braced prior to back fill.

3%

## **Floor Construction**

**8%**

### Floor Systems

Inspect floor system spans, bearing, and connections for compliance with approved plans. Verify that the cutting, notching, and borings are within the limitations permitted by code, and that materials are protected against insects and decay where required. Verify that subflooring and decking has required thickness, span, and grade and meets installation specifications. Verify compliance of floor design and fasteners. Verify that crawlspaces have required clearance, ventilation, insulation, screening, and access openings.

5%

### Concrete Slabs

Inspect concrete slabs placement for compliance with standards and material characteristics, and that proper precautions are used in adverse weather conditions.

3%

## **Wall Construction and Coverings**

**21%**

### Wood Wall Systems

5%

## General Administration

6%

Inspect wall systems for proper spans, spacing, bearing, and connections. Verify that pre-engineered wall systems are in accordance with the approved drawings and manufacturer's specifications. Verify that the cutting, notching, and borings are within the limitations permitted by code, and that wood members are protected against insects and decay where required.

### Steel Framing Systems

Inspect wall systems for proper spans, spacing, bearing, and connections. Verify that pre-engineered wall systems are in accordance with the approved drawings and manufacturer's specifications. Inspect steel framing for compliance with markings, standards, and the material characteristics. 3%

### Masonry Wall Systems

Inspect grouting, bonding, mortar type, mortar joint thickness, height, size, 5% lintels, and distance between lateral supports for masonry walls. Verify that weather conditions are suitable for masonry construction and that proper precautions are used for adverse weather conditions.

### Concrete Wall Systems

Inspect height, size, attachments, bracing, and distance between lateral supports. Verify that weather conditions are suitable for construction and that proper precautions are used for adverse weather conditions. 3%

### Wall Reinforcement

Inspect reinforcement for size, length of lap splices, clearances, alignment, cleanouts, and presence of loose rust, oil, or millscale. 2%

### Exterior Sheathing and Weather-Resistant Coverings

Verify that exterior sheathing and weather-resistant siding materials are correctly sized, identified, and installed; protected against insects and decay; and have appropriate clearances to finish grade. Verify that exterior veneers and weather-resistive siding have correct anchorage, support, and backing. Verify that a weather-resistant barrier is correctly installed for all walls and around all wall openings. Verify that plaster, 3%

## **General Administration**

**6%**

stucco, and metal lath have correct thickness and fasteners, and are correctly installed.

## **Roof/Ceiling Construction**

**6%**

### Roof/Ceiling Assemblies

Inspects roof/ceiling construction for compliance with span, grade, type, connections, bearing, and quality requirements. Verifies that trusses are in accordance with the drawings and properly spaced, braced, and supported. Verify roof access and rooftop structures where required. Verify that insulation is of permitted materials, is provided where required, and is correctly installed. Verify that vapor and moisture barriers are correctly installed. Verify that attic and ceiling area construction has proper ventilation, screens, and access.

**5%**

### Roof Sheathing and Coverings

Verify correct classification of roof coverings, roof slope, installation, flashings, and details, and method of roof drainage. Inspects roof sheathing for proper thickness, grade, support, and fastening. Verify re-roofing complies with code, design, and installation standards.

**1%**

## **Public Safety and Special Construction**

**31%**

### Means of Egress

Verify general means of egress requirements, exit access, exits, and exit discharge. Verify any miscellaneous means of egress and special occupancy requirements. Verify emergency escape and rescue requirements.

**10%**

### Fire Protection Systems

Inspects both manual and automatic fire protection, fire alarms, and detection and standpipe systems for proper installation, power supply, and locations.

**4%**

### Smoke and Fire Venting Control

Inspect for smoke control and fire venting as required by the code, approved plans, and construction documents.

**4%**

## General Administration

6%

### Interior Finishes and Insulation

Verify that interior floor, wall and ceiling finishes, insulation, and foam plastics comply with flame spread and smoke-developed index density requirements. Verify floor finishes comply with the critical flux rating required by the code, approved plans, and construction documents.

4%

### Safety Glazing and Glass

Verify that safety glazing is correctly installed and labeled where required.

4%

### Opening Protectives, Penetrations, and Joint Systems

Inspects opening protectives, penetrations, and joint systems in fire-rated assemblies to assure compliance with the code, approved plans, and construction documents. Verify that fire blocking and draft stopping are provided where required.

2%

### Miscellaneous Construction

Verify that exterior stairs, ramps, porches, decks, and balconies which are open to the weather are constructed to support designed loads; are of suitable materials; and have required slope and width, tread, riser, headroom, guardrails, and handrail dimensions.

1%

### Building Services and Special Construction

Inspect existing structures, membrane structures, temporary structures, pedestrian walkways, tunnels, awnings and canopies, marquees, signs, towers, antennas, elevators, and conveyance systems. Inspect building components for seismic restraint requirements.

1%

### Fireplaces and Chimneys

Verify that fireplaces, flues, and chimneys are correctly designed and have required clearances from combustible construction.

1%

QUESTIONS 80

TIME LIMIT 3.5 Hours

OPEN BOOK? Open

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Proctored Online Testing

\$290.00

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