### National Home Inspector Content Outline

#### Content Outline effective April 1, 2024

This content outline based on the role delineation study, is intended to provide candidates with topics for study that may appear on the National Home Inspector Examination. The percentage of questions on the examination for each content area is indicated below. The contents of this document are neither a complete listing of all topics covered by the examination nor all skills necessary to perform a competent inspection.

#### DOMAIN 1: PROPERTY AND BUILDING INSPECTION/SITE REVIEW (70%)

## **Task 1:** Identify and inspect **site conditions** to assess defects and issues that may affect people or the performance of the building. (5%)

#### a. Vegetation, Grade, Drainage, and Retaining Walls

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methodse
- iii. Typical defects (e.g., negative grade, earth to wood contact, poor drainage)
- iv. Common safety issues

#### b. Driveways, Patios, and Walkways

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., large cracks, improper slope, settlement/upheaval)
- iv. Common safety issues (e.g., trip hazards, slippery surfaces)

#### c. Pool and Spa Access Barriers

- i. Applicable safety standards and terminology
- ii. Common safety issues (e.g., fencing, latches, alarms)

## **Task 2:** Identify and inspect **building exterior components** to assess defects and issues that may affect people or the performance of the building. (5%)

#### a. Wall Cladding, Flashing, Trim, Eaves, Soffits, and Fascia

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., missing sections, water infiltration, decay)

#### b. Exterior Doors and Windows

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., decayed wood, missing flashings, cracked glass)

- iv. Common safety issues (e.g., safety glazing, egress, interior-keyed deadbolt)
- c. Decks, Balconies, Stoops, Stairs, Steps, Porches, and Associated Railings
  - i. Common types, materials, and terminology
  - ii. Applicable construction standards and installation methods
  - iii. Typical defects (e.g., improper deck ledger attachment, improper rail or stair construction, insufficient/incorrect fasteners)
  - iv. Common safety issues (e. g., loose or missing handrails and guards, handrails not graspable, non-uniform riser height/tread depth)

#### d. Garage Vehicle Doors and Operators

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., damaged rollers, broken springs)
- iv. Common safety issues (e.g., missing/misaligned/ malfunctioning obstruction sensors, improper adjustment of automatic reverse)

## Task 3: Identify and inspect **roof components** to assess defects and issues that may affect people or the performance of the building. (6%)

#### a. Roof Coverings

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical repair methods and materials
- iv. Typical defects (e.g., improper installation, damage, deterioration)

#### b. Roof Drainage Systems

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., ponding, improper slope, overflowing/leaking)

#### c. Roof Flashings

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., separation, improper material transitions, missing/damaged flashing)

#### d. Skylights and Other Roof Penetrations

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., leakage, improper flashing installation, deteriorated boot/collar)

### **Task 4:** Identify and inspect **structural components** to assess defects and issues that may affect people or the performance of the building. (6%)

#### a. Foundation

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical modifications, repairs, upgrades and retrofit methods and materials
- iv. Typical defects (e.g., cracks, settlement, water entry)
- v. Soil types and conditions and how they affect foundations
- vi. Applied forces and how they affect foundation systems (e.g., seismic, loads, hydrostatic pressure)
- vii. Water management (e.g., waterproofing, foundation drains, sump pumps)

#### b. Floor Structure

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical modifications, repairs, upgrade and retrofit methods and materials
- iv. Typical defects (e.g., improper cuts and notches in structural members, decayed or damaged structural members, undersized columns or pier supports)
- v. Applied forces and how they affect floor systems (e.g., wind, seismic, loads)

#### c. Walls and Vertical Support Structures

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical modifications, repairs, upgrade and retrofit methods and materials
- iv. Typical defects (e.g., decayed or damaged structural members, earth to wood contact, lack of fire separation)
- v. Applied forces and how they affect the wall structure (e.g., wind, seismic, loads)

#### d. Roof and Ceiling Structures

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical modifications, repairs, upgrade and retrofit methods and materials
- iv. Typical defects (e.g., sagging rafters, modified/ damaged trusses)
- v. Applied forces and how they affect roof/ceiling structures (e.g., wind, seismic, loads)

### **Task 5:** Identify and inspect **electrical systems** to assess defects and issues that may affect people or the performance of the building. (7%)

- a. Electrical Service (Laterals, Drops, Entrance, Equipment, and Grounding)
  - i. Common types, materials, and terminology
  - ii. Applicable construction standards and installation methods
  - iii. Typical modifications, repairs, upgrade and retrofit methods and materials
  - iv. Electrical service amperage
  - v. Service and equipment grounding and bonding
  - vi. Typical defects (e.g., improper grounding, exposed conductors, water entry)
  - vii. Common safety issues

#### b. Components of Service Panels and Subpanels

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical modifications, repairs, and upgrade methods and materials
- iv. Panel grounding and bonding
- v. Panel wiring (e.g., color coding, conductor sizing)
- vi. Principles of operation and purpose of protection devices (e.g., circuit breakers and fuses, GFCI, AFCI)
- vii. Inspection safety procedures
- viii. Known problem electrical panel boards (e.g., Federal Pacific/Stab-Lok, Zinsco/Sylvania)
- ix. Typical defects (e.g., double-tapping, over-fusing, loose connections)
- x. Common safety issues (e.g., open knock outs, overheating, multiple neutrals under one screw)

#### c. Wiring Methods

- i. Common types (e.g., non-metallic sheathed cable, armored cable, conduit), materials and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical modifications, repairs, and upgrade methods and materials
- iv. Considerations related to solid-conductor aluminum

branch circuit wiring

- v. Outdated electrical wiring system (e.g., knob and tube wiring, cloth-covered cable)
- vi. Typical defects (e.g., improper use of or lack of junction boxes, unprotected non-metallic sheathed cable, lack of proper support)
- vii. Common safety issues (e.g., open splices, no cable clamps at penetrations, exposed conductors)

#### d. Devices, Equipment, and Fixtures

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical modifications, repairs, upgrade and retrofit methods and materials
- iv. Equipment grounding and bonding
- v. Wiring, operation and location of typical devices and equipment (e.g., receptacles and lights, appliances, AFCI and GFCI protection)
- vi. Typical defects (e.g., reverse polarity, open equipment grounds, non-functional GFCI or AFCI protection)
- vii. Common safety issues (e.g., absence of AFCI or GFCI, ungrounded receptacle)

#### e. Alternative Energy Systems (e.g., Solar, Wind, Generator)

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Disconnect location
- iv. Common safety issues (e.g., improper connection to other systems, lack of transfer switch)

#### f. Electric Vehicle Service Equipment

- i. Common types, materials and terminology
- ii. Applicable construction standards and installation methods
- iii. Common safety issues

## **Task 6:** Identify and inspect **cooling systems** to assess defects and issues that may affect people or the performance of the building. (4%)

#### a. Cooling

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods and normal operation procedures
- iii. Principles of refrigerant cycle (e.g., theory of heat transfer, air conditioning, heat pumps)
- iv. Condensate control and disposal
- v. Typical defects (e.g., missing suction line insulation, condensation and/or rust on components, restriction of air flow at the condensing unit)
- vi. Common safety issues (e.g., missing or damaged disconnect, damaged wiring)

#### b. Distribution Systems

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., damaged or disconnected ducts, dirty air filter, lack of duct support)

# **Task 7:** Identify and inspect **heating systems** to assess defects and issues that may affect people or the performance of the building. (5%)

#### a. Heating

- i. Common types, materials, and terminology
- ii. Applicable construction standards, installation methods, and normal operation procedures
- iii. Principles of heating system operation
- iv. Connections to and controls for energy source
- v. Condensate control and disposal
- vi. By-products of combustion (e.g., H2O, CO2, CO, NO2), their generation, and how and when they become a safety hazard
- vii. Typical defects (e.g., dirty fan, misfiring burner, short cycling)
- viii. Common safety issues (e.g., inadequate combustion air, loose flue connections, flame rollout)

#### b. Distribution Systems

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., damaged or disconnected ducts, clogged, missing or damaged filters, leaking pipes)

#### c. Vent Systems

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Principles of vent system operation
- iv. Typical defects (e.g., improperly sloped vent, improper vent materials, inadequate clearance to combustible material)
- v. Common safety issues (e.g., back drafting/spillage, separated vent, venting too close to operable window)

Task 8: Identify and inspect insulation, moisture management systems and ventilation systems in conditioned and unconditioned spaces to assess defects and issues that may affect people or the performance of the building. (5%)

#### a. Thermal Insulation

- i. Common types, materials and terminology
- ii. Applicable construction standards and installation methods
- iii. Principles of heat transfer and energy conservation

- iv. Recommended insulation levels
- v. Typical defects (e.g., exposed paper backing, improper clearances, inadequate air sealing)
- vi. Common health and safety issues (e.g., excessive moisture, infestations, fire hazards)

#### b. Moisture Management

- i. Common types, methods, materials and terminology
- ii. Applicable construction standards and installation methods
- iii. Principles of moisture generation, relative humidity, and moisture movement in buildings (e.g., attic air bypasses, occupant use)
- iv. Effects of moisture vapor on building components, occupants and indoor air quality
- v. Moisture control systems (e.g., humidifiers/ dehumidifiers, vapor retarders)
- vi. Typical causes (e.g., missing or insufficient ventilation, missing/improperly installed insulation)

#### c. Ventilation Systems of Attics, Crawl Spaces, and Roof Assemblies

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects
- iv. Principles of air movement in building assemblies (e.g., stack effect, pressure differences)
- v. Conditioned/encapsulated attics and crawl spaces

## Task 9: Identify and inspect mechanical exhaust systems to assess defects and issues that may affect people or the performance of the building. (5%)

#### a. Mechanical Exhaust Systems (e.g., bath, kitchen, dryer)

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical modification, repair, upgrade, and retrofit methods and materials
- iv. Relationship between mechanical systems and ventilation systems
- v. Typical defects (e.g., improper termination, plastic dryer ducts)
- vi. Common safety issues (e.g., fire hazards, blockages/ obstructions)

### b. Indoor Air Management Systems (e.g., heat recovery ventilators, make-up air)

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical modification, repair, upgrade, and retrofit methods and materials

iv. Typical defects (e.g., inoperative, no bypass ducting, separated ducts)

# Task 10: Identify and inspect plumbing and fuel distribution systems to assess defects and issues that may affect people or the performance of the building. (6%)

#### a. Water Supply Distribution System

- i. Common types, materials, and terminology
- ii. pplicable construction standards and installation methods
- iii. Typical modification, repair, upgrade, and retrofit methods and materials
- iv. Typical defects (e.g., cross-connection, dissimilar metals, obsolete materials)
- v. Common water pressure/functional flow problems that affect water distribution system performance (e.g., hard water build-up, galvanized piping, pressure reducing valves)

#### b. Fixtures and Faucets

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical modification, repair, upgrade, and retrofit methods and materials
- iv. Typical defects (e.g., leaks, fixture attachment
- v. Common safety issues (e.g., absence of anti-scald valve, hot/cold reverse)

#### c. Drain, Waste, and Vent Systems

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical modification, repair, upgrade and retrofit methods and materials (e.g., joining different piping materials, sizing)
- iv. Principles and usage of traps and vents
- v. Differences between public and private disposal systems
- vi. Typical defects (e.g., deterioration, inadequate venting, improper slope)

#### d. Water Heating Systems

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Accessory items (e.g., seismic restraints, expansion tanks, recirculation systems)
- iv. Connections to and controls for energy source
- v. Combustion air requirements
- vi. Condensate control and disposal
- vii. Typical defects (e.g., vent/flue issues, fuel connection defects, temperature pressure relief valve defects)
- viii. Common safety issues (e.g., no temperature pressure

relief valve, missing or improperly connected vents)

#### e. Fuel Storage and Fuel Distribution Systems

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., missing piping supports, missing shut-off, leaking storage tank)
- iv. Common safety issues (e.g., gas leaks, lack of protective barriers, bonding)

#### f. Sump Pumps, Sewage Ejector Pumps, Related Valves and Piping

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Pump and discharge locations
- iv. Typical defects (e.g., inoperative sump pump, broken/missing lid, missing check valve)

## **Task 11:** Identify and inspect **interior components** to assess defects and issues that may affect people or the performance of the building. (4%)

#### a. Walls, Ceiling, Floors, Doors and Windows and Other Interior System Components

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects in interior surfaces caused by defects in other systems (e.g., structural movement, moisture stains)
- iv. Typical defects in interior surfaces NOT caused by other systems (e.g., defective operation of doors and windows, damage, absence of safety glazing)

#### b. Steps, Stairways, Landings, and Railings

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., improper riser height or tread depth, baluster spacing, loose/missing guards)
- iv. Common safety issues (e.g., loose treads, loose/ missing handrails, insufficient head clearance)

#### c. Installed Countertops and Cabinets

- i. Common types, materials, and terminology
- ii. Applicable construction standards and installation methods
- iii. Typical defects (e.g., missing knobs, damaged surfaces, loose doors/drawers)
- iv. Common safety issues (e.g., improperly secured cabinets and countertops, unsecured islands)

#### d. Installed Kitchen Appliances

i. Applicable construction standards, installation

methods and terminology

- ii. Basic operation using normal controls
- iii. Typical defects (e. g., inoperative burner, incorrectly installed dishwasher drain loop, disposer/disposal wiring connection issues)
- iv. Common safety issues (e.g., missing anti-tip bracket, combustible clearances, lack of dedicated circuit)

#### e. Smart Home Technology

- i. Emerging smart home technologies, applications, terminology and operations (e.g., electrical, plumbing, and HVAC)
- ii. Common defects and potential issues (e.g., improper installation, obsolete devices)
- iii. Considerations and limitations related to inspecting homes with smart technology

#### Task 12: Identify and inspect fireplaces, fuel-burning appliances, and their chimney and their chimney and vent systems to assess defects and issues that may affect people or the performance of the building. (6%)

#### a. Solid Fuel-burning (e.g., wood, pellet, coal) Fireplaces and Appliances

- i. Common types, materials (manufactured, masonry) and terminology
- ii. Common solid fuel chimney, vent connector, vent types, materials and terminology
- iii. Common masonry fireplace types, masonry flues, materials, applications, terminology and installation methods
- iv. Chimney foundation, height, clearance requirements and terminations
- v. Applicable construction standards and installation methods
- vi. Fuel types, combustion characteristics and combustion air requirements
- vii. Operation of equipment, components and accessories
- viii. Typical defects (e.g., hearth defects, clearance requirements, smoke chamber and damper/flue issues)
- ix. Common safety issues (e.g., creosote buildup, lack of spark arrestors, damaged firebox)

#### b. Gas and Liquid Fuel-burning (e.g., natural gas, propane) Fireplaces and Appliances

- i. Common types, materials (vented, direct vent, unvented) and terminology
- ii. Common gas and liquid fuel chimneys, vent connectors, vent types, materials and terminology
- iii. Common masonry and manufactured fireplace types, flues, materials, applications, terminology and installation methods
- iv. Chimney height, clearance requirements and terminations

- v. Applicable construction standards and installation methods
- vi. Fuel types, combustion characteristics and combustion air requirements
- vii. Operation of equipment, components and accessories
- viii. Typical defects (e.g., improper clearance, lack of fuel shut-off, soot stains at exterior)
- ix. 9. Common safety issues (e.g., missing/damaged damper stop, incomplete combustion, improper venting)

#### Task 13: Identify and inspect common life safety equipment and systems to assess defects and issues that may affect people or the performance of the building. (6%)

- i. Egress requirements (e.g., window security bar release, basement windows and doors, sill height)
- ii. Applicable fire/safety and occupancy separation requirements (e.g., fire separation walls and ceilings, fire-rated doors and penetrations)
- iii. Smoke alarm and carbon monoxide alarm placement
- iv. Fire suppression/sprinkler systems defects (e.g., painted or blocked sprinkler heads, low pressure)

#### DOMAIN 2: ANALYSIS OF FINDINGS AND REPORTING (20%)

**Task 1:** Inform the client of what was inspected, the methodologies used, and describe building systems and components by their distinguishing characteristics (e.g., purpose, type, size, location). (4%)

- i. Minimum and critical information required in inspection report
- ii. The type of systems and the location of system components
- iii. Common methods used to inspect particular components (e.g., walk on roof, observe attic or crawl space from hatch)
- iv. Common and emerging test instruments and their proper use (e.g., moisture meters, carbon monoxide meters, infrared cameras)

### Task 2: Describe the limitations in the inspection report to inform the client what was NOT inspected and why. (4%)

- i. Common limitations (e.g., environmental factors, inspection safety limitations, inaccessible areas or components)
- ii. Limitations of a visual inspection
- iii. Limitations of inspection due to presence of smart and emerging technology

### **Task 3:** Describe systems and components inspected that are not functioning properly or are defective. (6%)

- i. Expected service life of building and mechanical components.
- ii. Common indicators of potential failure (e.g., rust and corrosion, excessive or unusual noise/vibration, lack of routine maintenance)

- iii. Common defects and their descriptions
- iv. Common safety issues
- v. Implications of what might occur if identified defects are not repaired

### **Task 4:** Describe systems and components in need of further evaluation or action. (6%)

- i. Qualified professional or tradesperson required to complete repairs or perform further evaluations
- ii. Relationships between components in the building
- iii. Life-threatening safety hazards that warrant immediate action (e.g., gas leak, carbon monoxide accumulation, exposed energized wires)

#### DOMAIN 3: PROFESSIONAL RESPONSIBILITIES (10%)

**Task 1:** Discuss the elements of and obtain a written pre-inspection agreement (e.g., scope, limitations, terms of services) with the client or client's representative to establish the rights and responsibilities of the inspector and client. (5%)

- i. Purpose of a pre-inspection agreement
- ii. Typical elements of a pre-inspection agreement (e.g., exclusions and limitations, limits of liability, dispute resolution)
- iii. Considerations related to privacy
- iv. Timing of delivery and signing of pre-inspection agreement

### Task 2: Maintain quality, integrity, and objectivity of the inspection process. (5%)

- i. Fundamental Fundamental legal concepts (e.g., contractual responsibility, negligence, applicable governing regulations)
- ii. Conflicts of interest (e.g., inspector interest in the property, third-party stakeholders with financial interest in the outcome of the inspection)
- Types and purpose of financial protection (e.g., general liability, errors and omissions insurance warranties)
- iv. Protection of the client's interest (e.g., privacy of information, presence of cameras or listening devices, report confidentiality)
- v. Protection of the client's interest .

### Texas State Law Content Outline for Inspector Examinations

Effective Date: September 2, 2014

The State examination consists of twenty-five (25) scored items for the professional inspector and real estate inspector examinations. Both examinations also contain 5 pretest items. These pretest items are not identified and will not affect a candidate's score in any way. Because pretest items look exactly like scored items, candidates should answer all the items on the examination.

### I. STRUCTURAL SYSTEMS: TEXAS SOP EXCLUSIONS AND UNIQUE REPORTING REQUIREMENTS (2 ITEMS)

- II. ELECTRICAL SYSTEMS: TEXAS SOP EXCLUSIONS AND UNIQUE REPORTING REQUIREMENTS (3 ITEMS)
- III. MECHANICAL SYSTEMS: TEXAS SOP EXCLUSIONS AND UNIQUE REPORTING REQUIREMENTS (3 ITEMS)
  - A. Heating Ventilation and Air Conditioning Systems
  - B. Plumbing Systems
  - C. Appliances
  - D. Optional Systems

- IV. LICENSING LAW: CHAPTER 1102, TEXAS OCCUPATIONS CODE (9 ITEMS)
- V. GENERAL PROVISIONS: TREC RULES, CHAPTER 535, SUBCHAPTER R – REAL ESTATE INSPECTORS (8 ITEMS)