

Business Operations and Professional Ethics

Pre-Inspection Agreement:

1. If the client cannot sign the pre-inspection agreement, who is eligible to sign on their behalf?
2. If a realtor signs the pre-inspection agreement, what notation should be made below their signature?
3. When is the best time to have the pre-inspection agreement ideally be signed?

Liability and Insurance:

4. What protection does general liability insurance offer?
5. What protection does errors and omissions or professional liability insurance provide?
6. What protection does worker's compensation insurance cover?
7. Explain the purpose of a surety bond.

Responsibilities and Ethics:

8. Outline a contractual responsibility
9. Outline a fiduciary responsibility
10. Outline situations that would be conflicts of interest
11. If you discover a property you're inspecting is owned by a relative, like an uncle, what is the appropriate course of action?

Contractual Terms:

12. What are the 3 elements of a contract?
13. Explain the process of dispute resolution
14. Describe typical "exclusions and limitations" found in a pre-inspection agreement.

15. What are "limitations to liability" clauses?

16. Which clause is typically prohibited due to jurisdictional requirements?

Definable Terms

Automatic Safety Controls

Installed

Normal Operating Controls

Representative Number

Readily Openable Access Panel

Technically Exhaustive

Readily Accessible

Unsafe

Fiduciary

Surety Bond

Dispute Resolutions

Jurisdictional Requirements

Negligence

Limitations to Liability Clause

Exclusions and Limitations

Applicable Governing Regulations

Dispute Resolutions Clause

Mediation

Arbitration

Roofing

Roofing Materials and Their Requirements:

1. Specify the minimum pitch for the following roofing materials:
 - a. Asphalt shingles
 - b. Concrete/Terracotta Tile
 - c. Standing Seam Metal
 - d. Cedar shakes
 - e. Cedar shingles
 - f. Slate roofing
2. Describe the typical sheathing used for cedar shakes and shingles.
3. List 4 prevalent types of sheathing/decking in roofing?
4. List three valley types for asphalt shingles.

Flashing and Obstructions:

5. What is required when a roof obstruction is 30 inches or more?
6. What is the minimum distance for a roof penetration and a valley?

Roof Features and Elevations:

7. State the minimum separation between siding and roofing material.
8. Specify the minimum elevation above a roof for:
 - a. A flue of a gas-burning appliance
 - b. A flue of an oil-burning appliance
 - c. A chimney
 - d. A plumbing vent stack
9. Is it permissible to combine exhausts from different fuel types in the same flue?
10. What is the minimum curb height for a skylight with a pitch of 3:12 and above?
11. Specify the minimum curb height for skylights on low slopes.

Exhaust and Ventilation:

12. What is the minimum distance from the house for downspout extensions?
13. What is the minimum requirement for attic ventilation with a vapor barrier?
14. What is the minimum requirement for attic ventilation without a vapor barrier?

Roofing Definable Terms::

Rake
Gable
Hip
Ridge
Fascia
Soffit
Eaves
Drip Edge
Step Flashing
Reglet
Head Wall Flashing
Underlayment
Chimney Apron
Pitch Pocket
Cricket
Saddle
Diverter
BUR

Inspection Standards:

15. What is excluded from the Standards of Practice for roofing inspections?

Exteriors

Siding and Wall Finishes:

1. How many layers are applied and what is its total thickness for stucco applied to wood framing?
2. How many layers are applied and what is its total thickness for stucco applied over masonry?
3. Specify the minimum distance between stucco and the finished grade.
4. Specify the minimum distance between all other siding materials and the finished grade.

Landscaping and Grading:

5. How far should vegetation be maintained from a home's exterior?
6. What is the recommended slope for grading directed away from the home?

Stairs, Decks, Railings, and Walkways::

7. What is the maximum elevation deviation of a walkway before being deemed a tripping hazard?
8. What is the minimum width of a stairway?
9. What is the minimum width of a walkway?
10. What is universally required for all exterior doors?
11. Specify the minimum dimensions for a landing and the height drop from the finished floor.
12. What is the minimum pitch away from a home for a landing, porch, or deck?
13. Detail the standard height for a stair riser and the depth for a stair tread.
14. How many stairs can be present before handrails typically become necessary?
15. At what elevation are guardrails mandated on decks or elevated platforms?

16. Define a graspable handrail.

17. What is the maximum spacing allowed for openings in stairs, decks, and guardrails?

18. The maximum deviation between any tread or riser before being deemed a tripping hazard?

Pools and Water Features:

19. What are the requirements of a pool gate?
20. What are the requirements of a pool fence?
21. Which way is the pool deck sloped?
22. What would be required in the pool deck between the pool and the home?
23. What might air bubbles emerging from pool jets indicate?
24. What is required at the pool pump?

Exterior Definable Terms

Mudjacking

Irrigation Emitter

Irrigation Blow Off Valve

EIFS (Barrier vs Drainable)

Weep Screed

Weep Holes

Corner Cap

J Channel

Z Flashing

Drip Cap

Inspection Standards:

25. What elements are excluded from the Standards of Practice for exterior inspections?

Structure

Roofing and Ceiling Components:

1. List three methods to achieve an extended rafter span.
2. Describe an older technique for framing a ridge.
3. What is the typical spacing for roof rafters or trusses?
4. Who can modify a stick built aka framed roof?
5. Who can modify an engineered trussed roof?

Flooring and Joists:

6. What is the standard spacing for floor joists?
7. Explain how and where a joist can be modified.
8. Who can modify a stick built aka framed roof?
9. What is a ledger board, and what are its specifications?
10. What are methods for joist attachment?
11. What is required to prevent joist twist for dimension lumber?
12. Who can modify an engineered floor system?
13. Can a beam be modified?

Walls and Vertical Supports:

14. What is the common stud spacing?
15. What is required where a column meets the ground?
16. What is the minimum support for a lintel?
17. What does a star symbol on a building's side signify?

Site and Soil::

18. Describe a typical crack versus a problematic crack.
19. List common foundation materials.
20. List the soil materials from most to least bearing capacity.
21. List the soil materials from most to least drainability.

Structure Definable Terms::

Rafters
Ceiling Joists
Floor Joist
Rim Joist
Ridge Boards
Ridge Beam
Truss
Engineered I-Joist
Open Web Joist
Stud
Partition Wall
Bearing Wall
Monolithic Slab
Stem Wall
Header
Beam
Girder
Column
Post
Pier
Pile
Footers
Chords
Gusset Plate
Flange
Squash Blocks
CMU
ICF
SIP
Stringer

Inspection Standards:

22. What elements are excluded from the Standards of Practice for structural inspections?

Interiors

Ceilings, Stairs, and Hallways:

1. Specify the minimum ceiling height for:
 - a. Habitable areas
 - b. Above stairs
2. What is the minimum width for a stairwell or hallway?

Bathroom Dimensions and Safety:

3. State the minimum dimensions for:
 - a. A shower
 - b. - The area surrounding a toilet
4. When is safety glass mandated for:
 - a. Doors
 - b. Stair landings
 - c. Bathrooms

Ventilation Requirements:

5. Detail the ventilation requirements for attics:
 - a. With a vapor barrier
 - b. Without a vapor barrier
 - c. Outline the ventilation requirements for crawl spaces:
 - d. With a vapor barrier
 - e. Without a vapor barrier
6. What is the minimum size gap from insulation and decking for soffit vents to remain effective?

Insulation and "R" Values:

7. List the "R" values per inch for the following insulation materials:
 - a. Blown in cellulose
 - b. Blown in fiberglass
 - c. Blown in rockwool
 - d. Fiberglass batts
 - e. Rockwool batts
 - f. Spray foam
 - g. Vermiculite

Doors, Windows, and Safety Features:

8. What is the minimum dimensions of an attic access to be deemed accessible?
9. What is required in the attic at the attic access point?
10. Is it permissible to have a keyed deadbolt on the interior side of a door?
11. Define the minimum dimensions and height for an egress window.

Garage Specifications:

12. How many inches should the garage floor descend from the finished floor level?
13. What is the maximum height for garage door safety sensors?
14. What is required for safety for garage door openers?
15. What is the recommended pitch of the garage floor directed away from the dwelling?
16. What is required between the garage and finished area?

Kitchen and Appliances:

17. What are the specifications for a dryer vent and its termination?
18. Which appliances are typically excluded from the Standard Operating Procedures (SOPs)?

Inspection Standards:

19. What elements are not mandated for inspection as per the SOPs for interiors?

Electrical

Safety Devices and Protection:

1. What protection do GFCI's offer?
2. Where are GFCI's required?
3. What protection do AFCI's provide?
4. All circuits require what?

Wiring and Color Coding:

5. What color always represents neutral wires?
6. What color always represents ground wires?

Grounding and Bonding:

7. List four approved grounding methods.
8. Detail the requirements for ground rods.
9. State the two primary purposes of grounding.
10. Where is the only place grounds and neutrals are bonded?

Overcurrent Protection and Wiring:

11. Match overcurrent protection device amps with minimum wire sizes for all circuits.
13. Under what circumstances can a conductor be undersized for the over current protection device?

Service and Installation:

14. Identify the point on the incoming electrical service where homeowner responsibility begins.
15. Define the purpose of a drip loop and the weather head.
16. What are the minimum clearances for overhead utility service above a walkway, deck, driveway, road, swimming pool?
17. What is the minimum horizontal distance for overhead utility service from an openable window and deck railing?
18. What are the minimum clearances for any disconnect?
19. State the minimum underground distance for any type of service.

Switches, Outlets, and Receptacles:

20. How far along a wall can you go without encountering a general purpose receptacle outlet in habitable areas/bathrooms/kitchen?

21. What are the requirements for electrical motors and disconnects?

22. Where are 3-way switches required?

23. List three acceptable conditions for ungrounded receptacle outlets.

Wiring Types and Identification:

24. How can aluminum wiring be identified?
25. What are the risks associated with solid aluminum conductors?
26. What labeling is required for devices compatible with aluminum conductors?
27. Where is double tapping permissible?
28. Describe the various wiring methods.
29. Which wiring methods have no grounding wiring?

Smart Home Devices:

30. What is required when there is more than one smart home device being used?

Electrical Definitions:

OCP
GFCI
AFCI
SE
UF
NM
AC/BX
FMC
Knob and Tube
Cloth Wrapped Wire
Greenfield
GEC
Bonding
Grounding
Reverse Polarity
Open Grounds
Parallel Paths
Voltage
Amperage
Ohms
Wattage
Double Pole Breaker
Double Tap/Double Lugging
Smart Device
Smart Home Hub
PV Panel
PV Panel Array
Inverter

Inspection Standards:

31. What elements are excluded from the Standards of Practice for electrical inspections

Plumbing

Pipe Sizing and Materials:

1. List common sizes for water supply pipes.
2. List common sizes for DWV pipes.
3. What is the requirement when connecting two different metal plumbing materials?
4. Specify the minimum pitch for:
 - 2" or smaller drainage pipes
 - 3" and larger drainage pipes
 - A sewer vent pipe
5. What should the range of water pressure be for the incoming water service?

Drainage and Sewer Systems:

6. What is mandated within 5' of the sewer line entrance to a home?
7. What is the maximum distance allowed for a p-trap from the drain?
8. What is the purpose of the dishwasher high-loop, and on which side of the p-trap should it be placed?
9. Identify the most common type of indirect cross connection.

Water Heating and Temperature:

10. What are the specific requirements for a TPR valve and its plumbing?
11. On which side of a sink is hot water typically plumbed?
12. State the minimum and maximum safe temperatures for hot water.
13. Which side of the water heater requires a shut-off valve?
14. What is the minimum distance above the garage floor for a water heater that is not an FVIR type?
15. When did water heaters have to become an FVIR type?
16. What is required in a garage to prevent vehicle impact into a water heater?

Gas Supply and Piping:

14. What is the prevalent type of gas supply piping, and which type is rapidly becoming more common?
17. Identify a hazardous material type for an appliance connector.
18. An appliance connector can only be used where?
19. Where are the only places a 6' appliance connector can be used?
18. What is required:

- At the appliance for gas supply piping?
- At the gas supply service entrance?

19. If copper is utilized for gas plumbing, how should it be labeled?
20. What are the minimum safe distances for a propane tank and its direction?
21. What are the minimum distances a gas meter, fuel oil tank, or propane tank can be away from an ignition source.

Tubs, Showers, and Fixtures:

22. What requirements are in place for a jetted tub?
23. State the minimum pitch of a shower floor leading to the drain.
24. What is the minimum air gap size for any supply reaching the flood rim?

Valves, Disposers, and Traps:

25. Who is accountable for replacing a food disposer?
26. Why are S-traps prohibited?
27. What is the maximum distance from a drain to a P-trap?

Pipe Materials and Colors:

28. Identify the colors for PVC, CPVC, and ABS.
29. Describe the three thickness levels and color coding for copper supply plumbing, and specify which thickness is not suitable for underground use.

Plumbing Definitions:

AAV
Cross Connection
Direct Cross Connection
Indirect Cross Connection
TPR Valve
CSST
FVIR
Ballard
Water Hammer
Pipe Groan

Inspection Standards:

30. What components are excluded from the Standards of Practice for Plumbing?

HVAC

Combustion and Flames:

1. What does a yellow flame indicate?
2. Carbon monoxide is a byproduct of what process?
3. On an oil-burning appliance, what flame color signifies complete combustion?

Refrigerants and Lines:

4. Identify the refrigerant line that is:
 - Warm when in operation
 - Cold when in operation
 - Insulated
 - Returning the refrigerant to the compressor
5. What collective name is given to the refrigerant lines?
6. When in operation, the air coming off the condenser is warmer or colder?
7. Which type of refrigerant was prevalent:
 - Before 2010?
 - After 2010?

Components and Locations:

8. Specify the location of the:
 - Condenser
 - Compressor
 - Evaporator coil
9. What are the clearances for a furnace?

Temperature and Operation:

10. Define delta "T" and state the recommended delta "T" for:
 - An AC
 - A heat pump in heating mode
11. Under what conditions should you avoid operating the AC or heat pump?

Heat Pumps and Furnaces:

12. Differentiate between a restricted and unrestricted heat pump.
13. What purpose does the defrosting cycle serve for a heat pump?
14. Which furnace type is prohibited from horizontal installation?
15. What safety feature is present on the door of a mid-efficiency furnace?
16. What should any appliance equipped with a pilot light possess?

Boilers and Pressure:

17. What should a steam boiler include?
18. Detail the normal operating temperature and pressure for:
 - A steam boiler
 - A hydronically circulated boiler
19. What are the set values for the pressure relief valve for both types of boilers?

20. What additional component should a hydronically circulated boiler have?

20. Name the two types of gravity boilers.

Fireplaces and Vents:

21. Which component determines the proper proportions for all fireplace and chimney components?

23. Specify the hearth extension size for fireplaces and based on their opening size.

24. Specify the hearth extension for a listed and unlisted wood stove.

25. What are the minimum distances for both materials up to 1.5" and over 1.5" away from the firebox?

26. What are the minimum distances for both materials up to 1.5" and over 1.5" away from a listed wood stove?

27. What are the minimum distances for both materials up to 1.5" and over 1.5" away from an unlisted wood stove?

28. List the distances from combustibles for the following flues for a natural gas or propane burning appliance:

- Single Wall
- Double Wall B Vent
- Double Wall BW Vent

29. List the distances from combustibles for the following flues for an oil burning appliance:

- Single Wall
- Double Wall L Vent

30. List the distances from combustibles for the following flues for a wood burning appliance:

- Single Wall Stove Pipe
- Double Wall Stove Pipe
- Class A Vent

30. Which type of flue vent does pellet stoves require?

Ventilation and Fans:

31. Dust around a discharge supply register indicates what?

32. What is essential for a whole house fan, and in which direction should it be oriented?

33. Explain the concept of a whole house fan and identify the insulation type it's incompatible with.

HVAC Definitions:

- Firebox
- Hearth
- Chase
- Throat
- Smoke Chamber
- Smoke Shelf
- Flue
- Chimney Cap
- Chimney Crown
- Spark Arresting Screen
- Down or Back Drafting

Inspection Standards:

34. What components are excluded from the Standards of Practice for HVAC?