



## **International Standards of Practice for Inspecting Commercial Properties**

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## 1. Purpose

1.1 The purpose of this **MANUAL** is to define good practice and to establish a reasonable approach for the performance of an inspection of a commercial property.

## 2. Definitions

### 2.1 Core definitions

2.1.1 Commercial Property - A commercial property is defined as the building structures and improvements located on a parcel of commercial real estate. These may include structures such as buildings with residential units operated for profit, mixed-use buildings, strip malls, motels, factories, storage facilities, restaurants, and office buildings.

2.1.2 Inspection - The inspection is defined as the process of an inspector collecting information through visual observation during a walk-through survey of the subject property, conducting research about the property, then generating a meaningful report about the condition of the property based on the observations made and research conducted by the inspector. A commercial inspection requires the inspector to make observations, conduct research, and report findings.

2.1.2.1 Observations - Observations are defined as those potential items of interest noted by the inspector during the walk-through survey portion of the inspection.

2.1.2.2 Research - Research is defined as the process of gathering information through document review and interview to augment the observations made during the walk-through portion of the inspection. This research may include reviewing readily available documents such as previous inspection reports, building permits, code violation notices and environmental studies. This research may also include interviews with readily available personnel such as building managers, tenants and owners.

2.1.2.3 Report - An inspection report is defined as a written communication describing the issues discovered from observations made and research conducted by the inspector that are, in the inspector's opinion, likely to be of interest to his/her client. A report may contain photographs of observations made during the walk-through survey portion of the inspection and/or copies of documents reviewed during the research portion of the inspection.

## 2.2 Terminology commonly found in commercial property inspection reports

- Above Grade Wall: A wall more that is mostly above grade and enclosing conditioned space.
- Access: That which enables a device, appliance or equipment to be reached.
- Access Panel: A closure device used to cover an opening into a duct, an enclosure, or equipment.
- Accessible: Can be approached or entered by the inspector safely, without difficulty, fear or danger.
- Accessibility: Level of access a building offers people with disabilities.
- Accessory Structure: An additional building to the primary building.
- Activate: To turn on, supply power, or enable systems, equipment, or devices to become active by normal operating controls. Examples include turning on the gas or water supply valves to fixtures and appliances or activating electrical breakers or fuses.
- Actual Knowledge: The knowledge possessed by an individual as opposed to that discovered through document review.
- Addition: An extension or increase in the conditioned space of a building.
- Adverse Conditions: Conditions that may be dangerous for the inspector and may limit the walk-through survey portion of the inspection.
- Adversely Affect: To constitute, or potentially constitute, a negative or destructive impact.
- Air Intake: An opening in a building's envelope whose purpose is to allow outside air to be drawn in to replace inside air.
- Aisle: An exit access component that provides a path of egress travel.
- Alarm Signal: A signal indicating an emergency, such as a fire, requiring immediate action.
- Alarm System: Warning devices, installed or free-standing, including but not limited to: carbon monoxide detectors, flue gas and other spillage detectors, security equipment, ejector pumps and smoke alarms.
- Alteration: Any construction or renovation to an existing structure other than a repair or addition. Also, a change in a mechanical system.
- Appliance: Utilization equipment, generally other than industrial, that is installed or connected as a unit to perform one or more functions.
- Approved: Acceptable to the authority having jurisdiction. Also, accepted by an internationally recognized organization such as InterNACHI.
- Arc-Fault Circuit Interrupter: A device intended to provide protection from the effects of arc faults by recognizing characteristics unique to arcing and by functioning to de-energize the circuit when an arc fault is detected.
- Authority Having Jurisdiction (AHJ): An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure. The AHJ is often the building owner, health department, insurance agent, or fire marshal.
- Automatic: That which provides a function without the necessity of human intervention.
- Automatic Fire-Extinguishing System: A system of devices and equipment which automatically detects a fire and discharges in an attempt to put it out.
- Automatic Sprinkler System: An automated sprinkler system for fire protection purposes.
- Balcony: Exterior floor projecting from and supported by a structure without additional independent supports.
- Band Joist: Dimensional lumber used as a perimeter joist of the building framing.
- Basement: That portion of a building which is partly or completely below grade.
- Basement Wall: A wall of a building that is mostly below grade.
- Bathroom: A room containing plumbing fixtures such as a water closet, urinal, bathtub, or shower.
- Bedroom: A room used for sleeping purposes.
- Bidet: A toilet-like plumbing fixture designed to promote posterior hygiene. Not a toilet.
- Bonding: The permanent joining of metallic parts to form an electrically conductive path that ensures electrical continuity and the capacity to conduct safely any fault current likely to be imposed.
- Branch Circuit: The circuit conductors between the final overcurrent device protecting the circuit and the outlet(s).
- Building: The primary building subject of the commercial inspection.
- Building Code: Rules and regulations adopted by the governmental authority having jurisdiction over the construction and/or remodeling of the commercial property.

- Building Department: Local authority having jurisdiction over the construction, alteration, and use of a property.
- Building Envelope: The enclosure that defines the heated/cooled area of a building, namely the exterior walls and roof.
- Building Systems: Components, assemblies and systems which are a part of the overall building and property such as pavement, flatwork, structural components, roofing, exterior walls, plumbing, HVAC, electrical components, fire prevention, etc.
- Built-in: Permanently installed.
- Certified Commercial Inspector (CCI): A professional designation and a U.S. federal certification mark administered by the International Association of Certified Home Inspectors, Inc. (InterNACHI).
- Chimney: A structure containing one or more flues for removing gases to the outside atmosphere.
- Cleanout: An accessible opening in the drainage system used for the removal of possible obstructions and for inspections. An opening in a chimney that provides access to the flue for cleaning purposes.
- Clearance: The minimum distance through air measured between the surface of something heat-producing and the surface of something combustible.
- Clearly Identifiable: Capable of being recognized by a person of normal vision.
- Client: The party that retains the inspector and pays for the inspection.
- Code Official: The officer or other government designated authority charged with enforcement of building codes.
- Combustible: Describes any material that will burn.
- Commercial Cooking Appliances: Appliances used in a commercial food service establishment for heating or cooking food.
- Commercial Property: The building structures and improvements located on a parcel of commercial real estate. These may include structures such as buildings with residential units operated for profit, mixed use buildings, strip malls, motels, factories, storage facilities, restaurants, and office buildings.
- Component: A permanently installed or attached fixture, element or part of a system.
- Concealed: Rendered inaccessible by the structure or finish of the building. Wires in concealed raceways are considered concealed, even though they may become accessible by withdrawing them.
- Condition: The plainly visible and conspicuous state of being of a material object or thing.
- Conditioned Space: An area or room within a building being heated or cooled.
- Connector: The pipe that connects a fuel-burning appliance to a chimney.
- Consultant: A person with particular expertise in a subject who assists the inspector with portions of the inspection.
- Contamination: An impairment of the quality of the potable water.
- Crawlspace: The area within the confines of the foundation and between the ground and the underside of the lowest floor structural component.
- Cross Connection: Any connection between two otherwise separate piping systems, one of which contains potable water and the other which contains something which could contaminate the potable water.
- Crown: The sloped top of a masonry chimney designed to shed water away from the flue; also called a splay or a wash.
- Damper: A valve or plate for controlling draft or flow of gases, including air, in a vent or ductwork. A typically manually-operated plate for controlling draft in a flue.
- Decorative: Ornamental; not required for the operation of essential systems and components of a building.
- Deck: Exterior floor system supported on at least two opposing sides by an adjoining structure and/or post, piers, or other independent supports.
- Defensible Space: An area around a building designed to slow the rate of an advancing wildfire.
- Deferred Maintenance Items: Deficient items that cannot be remedied with routine maintenance, generally caused by neglect.
- Describe: To report in writing a system or component by its type, or other observed characteristics, to distinguish it from other components used for the same purpose.
- Destructive: An act of demolishing, damaging, or probing any system, structure, or component, or to dismantle any system or component that would not be taken apart by an ordinary person in the course of normal maintenance.
- Determine: To arrive at an opinion or conclusion pursuant to examination.
- Disconnected: Shut down.
- Dismantle: To open, take apart or remove any component, device or piece that would not typically be opened, taken apart or removed by an ordinary occupant.

- Duct: A passageway, tube, or conduit utilized for the transmission of air and vapors.
- Due Diligence: A level of care in the inspection process which varies depending upon the scope of work agreed upon by the inspector and his/her client.
- Dwelling Unit: A single unit providing complete, independent living facilities, including permanent provisions for living, sleeping, eating, cooking and sanitation.
- Easily Visible: Describes systems, items, and components that are both conspicuous and in plain sight, absent of the need for intrusive inspection techniques, probing, disassembly or the use of special equipment.
- Easement: That portion of a land or property reserved for use by a person or agency other than the owner of the property.
- Egress: A means of exiting.
- Emergency Shut-off Valve: A valve designed to shut off the flow of gases or liquids.
- Energy Analysis: A method for estimating the annual energy use of a building.
- Energy Recovery Ventilation System: A system that uses air-to-air heat exchangers to recover energy from exhaust air for the purpose of preheating or precooling outdoor air prior to supplying the air to a space.
- Engineering Service: Any professional service or creative work requiring engineering education, training, and experience and the application of special knowledge of the mathematical, physical and engineering sciences to such professional service or creative work as consultation, investigation, evaluation, planning, design and/or supervision of construction for the purpose of assuring compliance with the specifications and design, in conjunction with structures, buildings, machines, equipment, works or processes.
- Enter: To access or go into an area to observe visible components.
- Evaluate: To assess the systems, structures or components of a building.
- Evidence: Plainly visible and conspicuous material objects or other things presented to the senses that would tend to produce conviction in the mind of an ordinary person as to the existence or non-existence of a fact.
- Examine: To visually examine. To look for and identify material physical deficiencies in systems, structures, or components of a building through a non-intrusive physical inspection. See Inspect.
- Existing: Buildings, facilities or conditions which are already in existence. This standard is designed to be used to inspect existing commercial properties.
- Exit Discharge: The portion of a means of egress between the termination of an exit and a public way.
- Exposed: Capable of being inadvertently touched by a person because it is not suitably guarded, isolated, or insulated.
- Exterior Property: The open space on the property.
- Exterior Wall: An outside wall of a building, either above or below grade.
- Extermination: The control or elimination of insects, rats, vermin, or other pests.
- Fenestration: Fenestration includes products with glass and non-glass glazing materials including skylights, roof windows, vertical windows, opaque doors, glazed doors, or glazed block.
- Fire Apparatus Access Road: A road, fire lane, public street, private street, or parking lot lane that provides access from a fire station to a facility.
- Fire Code Official: The fire chief or other authority charged with the enforcement of a code.
- Fire Department Master Key: A special key carried by fire department officials which will open key boxes on commercial properties.
- Fire Resistance Rating: The time that materials or assemblies can withstand fire exposure.
- Fire Wall: A wall separating buildings or subdividing a building to prevent the spread of fire.
- Fireplace Lintel: A horizontal, noncombustible member that spans the top of the fireplace opening.
- Fixture: Component.
- Flood Level Rim: The edge of a fixture from which water overflows.
- Floor Area, Gross: The floor area within the inside perimeter of the exterior walls.
- Floor Area, Net: The actual occupied area not including accessory areas such as corridors, stairways, restrooms, mechanical rooms and closets.
- Flue: A passage through which gasses move from the fire chamber to the outer air.
- Foundation: The base upon which the structure or wall rests; usually masonry, concrete, or stone, and generally partially underground.
- Function: The action for which an item, component, or system is specially fitted or used or for which an item, component or system exists; to be in action or perform a task.

- Functional: Performing, or able to perform, a function.
- Functional Drainage: The emptying of a plumbing fixture in a reasonable amount of time without overflow when another fixture is drained simultaneously.
- Functional Flow: A reasonable flow of water supply at the highest and farthest fixture from the building main when another fixture is operated simultaneously.
- Further Evaluation: A degree of examination beyond that of a typical and customary non-intrusive physical examination.
- Fusible Link: A form of fixed-temperature, heat-detecting device sometimes used to restrain the operation of an electrical or mechanical control until a certain temperature is reached, usually signifying a fire.
- Garbage: The animal or vegetable waste resulting from preparation or consumption of food.
- Grease: Animal fat, vegetable shortening, or oil used in preparing food or resulting from cooking.
- Grounded: Connected to the earth or to some conducting body that serves in place of the earth.
- Grounded, Effectively: Intentionally connected to the earth through a ground connection or connections of sufficiently low impedance and having sufficient current-carrying capacity to prevent the buildup of voltages that might otherwise result in undue hazards to connected equipment or to persons.
- Ground-Fault Circuit Interrupter (GFCI): A device intended for the protection of personnel that functions to de-energize a circuit.
- Grounding Electrode: A device that establishes an electrical connection to the earth.
- Habitable Space: Space in a structure for living, sleeping, eating or cooking. Bathrooms, closets, halls, storage areas and utility spaces are not considered habitable spaces.
- Hearth: The floor within a fireplace.
- Hearth Extension: Noncombustible material in front of and at the sides of a fireplace opening.
- Heated Slab: Slab-on-grade construction in which the heating elements are placed within or under the slab.
- Hood: A device that directs and captures grease-laden vapors and gases from a cooking appliance.
- Immediate Cost: Estimated cost of remedying an existing safety hazard or repairing a system or component that will likely fail within a year.
- Humidistat: A device used to automatically control relative humidity.
- Imminent Danger: A condition which could cause serious or life-threatening injury or death.
- Infestation: The presence of insects, rats, vermin, or other pests.
- Infill: Area of the railing system bounded by the railing posts, cap, rail, and the deck.
- Infiltration: The uncontrolled inward air leakage into a building.
- Inspected Property: The readily accessible areas of the buildings, site, items, components, and systems included in the inspection.
- Inspection: The process of an inspector collecting information through visual observation during a walk-through survey of the subject property, conducting research about the property, and then generating a meaningful report about the condition of the property based on the observations made and research conducted by the inspector. A commercial inspection requires the inspector to make observations, conduct research, and report findings.
- Inspector: One who performs the commercial property inspection.
- Installed: Attached or connected such that the installed item requires tool for removal.
- Interview: To discuss with those who have knowledge about the subject property.
- Intrusive: Destructive.
- Key Box: A lockable device which permits the fire department to access the building in an emergency.
- Labeled: Devices, equipment, or materials to which have been affixed a label, seal, symbol or other identifying mark of product evaluation.
- Ledger: Dimensional lumber attached to the building framing and used for supporting the section of a deck adjacent to the building.
- Life Expectancy: Average function time in years assuming regular maintenance.
- Listed: Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.
- Mantel: A shelf or horizontal ornament above a fireplace opening.

- Manual: Capable of being operated by a person.
- Material: Having significant importance, as in material defect. This term is reserved for describing things of significant importance.
  - Material Defect: A condition of a commercial property or any portion of it that would have a significant adverse impact on the value of the real property or that involves unreasonable risk to people on the property. The fact that a structural element, system or subsystem is near, at or beyond the end of the normal useful life of such a structural element, system or subsystem is not by itself a material defect.
- Means of Egress: A continuous and unobstructed path out of a building to a public way.
- Mold: A form of fungus. Some molds can cause disease in humans.
- Noncombustible: A substance that will not burn when subjected to fire.
- Normal Operating Controls: Devices such as thermostats that would be operated by ordinary occupants which require no specialized skill or knowledge.
- Observations: Those potential items of interest noted by the inspector during the walk-through survey portion of the inspection.
- Observe: To see through visually directed attention.
- Obvious: A condition or fact not likely to be ignored or overlooked.
- Occupancy Load: The number of people permitted in a building based on the means of egress.
- Occupant: Any individual living, sleeping, or having possession of a space within a building.
- Operate: To cause systems to function or turn on with normal operating controls.
- Operational: Systems or components capable of being safely operated.
- Oral Consultation: A limited visual inspection of specific systems, structures, or components of a building where no written report is prepared by the inspector, and the inspector's findings, opinions, conclusions and recommendations are orally communicated by the inspector to the client.
- Owner: Any person, agent, operator, firm or corporation having a legal or equitable interest in a property.
- Panelboard: A panel including buses and automatic overcurrent devices designed to be placed in a cabinet accessible only from the front.
- Permanently Installed: Fixed in place (e.t. screwed, bolted, or nailed), as distinct from components, systems, or appliances considered portable or freestanding.
- Phase I: A type of fireplace and chimney inspection that exceeds the standards required by a traditional home inspection.
- Physical Deficiency: A major defect, a significant deferred maintenance item, a component or system that has exhausted most or all of its remaining useful life (regardless of its actual life expectancy), a safety concern, or anything that could potentially cause the need for an expensive repair.
- Pitch: Angle or inclination, usually of a roof.
- Plenum: An air compartment or chamber which connects one or more ducts and forms part of an air distribution system.
- Premises: A lot, plot, parcel of land, property, or building.
- Pressure Drop: The loss in pressure due to friction or obstruction in pipes, valves, fittings, regulators, and burners and the length of pipes and the number of elbows.
- Pressure Regulator: A device placed in a gas line for reducing, controlling and maintaining the pressure downstream of the device.
- Primary Building: A building that an inspector has agreed to inspect, excluding all accessory buildings, with the exception of the primary parking structure.
- Primary Parking Structure and Surfaces: A building and appurtenant surfaces for the purpose of vehicle storage associated with the primary building.
- Public Way: A street, alley or yard open to the outside and leading to a public area.
- Publicly Available Information: Information that is accessible or available to anyone upon request.
- Raceway: An enclosed channel or conduit designed expressly for holding wires or cables.
- Ramp: A sloped walking surface.
- Readily Accessible: Describes the area of the subject property that has been made available to the inspector at the time of the walk-through survey portion of the inspection, and/or an item or component if, in the judgment of the inspector, it is capable of being safely observed without the need of portable ladders, the removal of obstacles, the detachment or disengagement of connecting or securing devices, or other unsafe or difficult procedures to gain access, and/or a document that has been made available to the inspector for use in the research portion of the inspection.

- Readily Ascertainable: Describes information that is available to the inspector within reasonable time at a nominal cost so that it can be practically reviewable during the research portion of the inspection.
- Readily Available: Describes the information, personnel, and documents that are made available quickly to the inspector.
- Receptacle: A contact device installed at the outlet for the connection of an attachment plug.
- Recreational Facilities: Spas, saunas, steam baths, swimming pools, tennis courts, playground equipment, and other exercise, entertainment or athletic facilities.
- Remaining Useful Life: A subjective estimate or guess made by the inspector based upon his observations and experience as to the number of remaining years that a component will be functional before needing replacement.
- Removable: Capable of being transferred to another location easily.
- Replacement Air: Air deliberately brought into a structure to compensate for the air being consumed or expelled.
- Repair: The reconstruction or renewal of any part of an existing building.
- Report: The written communication describing the issues discovered from observations made and research conducted by the inspector and which, in the inspector's opinion, are likely to be of interest to his/her client. A report may contain photographs or digital images of observations made during the walk-through survey portion of the inspection and/or copies of documents reviewed during the research portion of the inspection.
- Representative Number: A sufficient number to serve as a typical or characteristic example of the item(s) inspected.
- Representative Sampling: A small quantity of components of any system or structure, enough like others in its class or kind, to serve as an example of its class or kind.
- Research: The process of gathering information through the review of documents and interviews to augment the observations made during the walk-through portion of the inspection. This research may include reviewing readily available documents such as previous inspection reports, building permits, code violation notices and environmental studies. This research may also include interviews with readily available personnel such as building managers, tenants and owners.
- Roof Assembly: A system designed to provide weather protection and including the roof covering, underlayment, roof deck, insulation, vapor retarder and interior finish.
- Rubbish: Waste materials other than garbage.
- Scope of Work: Work that deviates from this standard depending on budget, time constraints, purpose of the inspection, age of the subject property, and risk tolerance of the client which the inspector and client have agreed to.
- Screw Lamp Holder: A lamp base that requires a screw-in-type lamp such as a compact fluorescent, incandescent, or tungsten-halogen bulb.
- Short-Term Cost: Estimated cost of repairs which may not require immediate attention, but which should not be delayed for more than two years.
- Shut Down: Turned off, unplugged, inactive, not in service, or not operational.
- Single-Wall, Metal Chimney: A typically field-constructed chimney not permitted in one- and two-family dwellings.
- Sleeping Unit: A room or space in which people sleep.
- Smoke Alarm: A single or multiple alarm responsive to smoke and not connected to a sprinkler system.
- Smoke Detector: A device that senses particles of combustion.
- Solid Fuel: Wood, coal, pellets, and other materials that can be burned for heat.
- Special Consultant: A person with particular expertise in a subject who assists the inspector with portions of the inspection.
- Special Equipment: Any tools or devices other than those normally used by an inspector to perform a typical and customary, non-invasive, physical examination of the systems, structures, and components of a building, including, but not limited to: levels, probes, meters, video or audio devices and measuring devices.
- Standard: Often used to mean InterNACHI's Standards of Practice for Inspecting Commercial Properties.
- Storefront: A nonresidential system of doors and windows typically at floor level of a commercial building.
- Structural Component: A component which supports the building's dead and live loads.
- Structure: An assemblage of various systems and components to function as a whole.
- Subject Property: The commercial property that is the subject of the inspection.
- Suggested Remedy: An opinion offered as to a course of action to repair a deficiency. Suggested remedies are outside the scope of a commercial inspection.
- Sump: A tank or pit that receives sewage or waste water typically located below the drain system and so must be emptied by mechanical means.

- Sump Pump: An automatic water pump powered by a motor and typically controlled by a float for the removal of waste water from a sump pit.
- System: An assembly of various components which function as a whole.
- Technically Exhaustive: A comprehensive and detailed examination beyond the scope of a commercial property inspection which might involve, but would not be limited to: specialized knowledge or training, special equipment, measurements, calculations, testing, research, analysis, meters, scaffolding, dismantling, probing, or troubleshooting. Also, where the cost of obtaining information or the time required to conduct a portion of the inspection and prepare that portion of the inspection report could outweigh the likely usefulness of the information obtained or could be detrimental to the orderly and timely completion of the client's transaction.
- Thermostat: An automatic control device used to maintain temperature at a set point.
- Thimble: The tube or lining through a wall that a connector passes through to enter a flue or that a flue passes through to exit a roof.
- Timely Access: Access to the subject property and documentation required by the inspector to perform the inspection.
- Toilet Room: A room containing a water closet or urinal but not a bathtub or shower.
- Trap: A fitting that provides a liquid seal to prevent the emission of sewer gases and odors.
- Tree Crown: The branches growing out from a tree including twigs and foliage.
- Unsafe: A condition of an area, system, component, or procedure which, in the inspector's opinion, poses a significant risk to the personal safety of either the occupants and/or him/herself. The danger to the occupants may be due to damage, deterioration, improper installation, a change in accepted standards, etc. The danger to the inspector may be due to electrical, fuel, height, sewage, water, debris, weather or other environmental conditions, and may restrict his/her access and limit or prevent the inspection.
- Valve: A device used in piping to control the gas or liquid supply downstream of the device.
- Vapor Retarder: A vapor-resistant material, membrane, or covering such as foil, plastic sheeting, or insulation facing which limits the amount of moisture vapor that passes through a material or wall assembly.
- Ventilation: The natural or mechanical process of supplying and removing air from any space.
- Verify: To confirm or substantiate.
- Visible: That which may be easily observed during the walk-through survey portion of the inspection.
- Walk-Through Survey: That portion of the inspection where the inspector makes non-intrusive, visual observations of readily accessible areas of the subject property.
- Wall Protector: Noncombustible shield between a wall and anything heat-producing for the purpose of reducing required clearance.
- Workmanlike: Executed in a skilled manner.
- Yard: An open space on the same lot with a building.
- Zone: The space or group of spaces within a building with conditioning controlled by a single device.

### 2.3 Common abbreviations and acronyms used in commercial property inspection reports

- ADA: Americans with Disabilities Act (US).
- AHJ: Authority having jurisdiction.
- BUR: Built-up roofing.
- CCI: Certified Commercial Inspector.
- CMI: Certified Master Inspector.
- CPI: Certified Professional Inspector.
- CO: Certificate of Occupancy.
- COMSOP: Commercial Standards of Practice.
- CSA: Canadian Standards Association.
- EIFS: Exterior insulation and finish system.
- EPA: Environmental Protection Agency (US).
- HVAC: Heating, ventilation and air conditioning.
- IAC2: International Association of Certified Indoor Air Consultants.
- IAQ: Indoor air quality.
- InterNACHI: International Association of Certified Home Inspectors.
- ICC: International Code Council.
- IR: Infrared.
- MICB: Master Inspector Certification Board.
- NEC: National Electric Code (UK).
- NFPA: National Fire Protection Association.
- PE: Professional Engineer.
- RICS: Royal Institute of Chartered Surveyors (UK).
- RUL: Remaining useful life.

### 2.4 Other inspection related terms

Other inspection-related terms can be found by visiting InterNACHI's searchable online Glossary at [www.nachi.org/glossary.htm](http://www.nachi.org/glossary.htm)

### 3. Use

#### 3.1 Royalty-free use

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#### 3.2 Conflicts with other standards, codes, local laws, and manufacturer's instructions.

There likely exist other standards, codes, local laws, and manufacturer's instructions that differ or are in conflict with this standard and with each other. Although this standard does not require an inspector to know or discover all the provisions that may pertain to every situation, this standard does require an inspector, if aware of such conflicts, to author the inspection report based on the requirements that provide the greatest protection of life and property, in the inspector's judgment. This standard is not intended to usurp or abridge adopted codes or ordinances.

#### 3.3 Substantial compliance

The inspector shall substantially abide by this standard unless otherwise agreed to in writing by the inspector and client.

#### 3.4 Disclaimer of liability

InterNACHI administers the process in the development of its standards. InterNACHI does not independently test, evaluate, or verify the accuracy of any information or the soundness of any judgments contained in its standards. InterNACHI disclaims liability for any personal injury, property or other damages of any nature whatsoever, whether special, indirect, consequential or compensatory, directly or indirectly resulting from the publication, use of, or reliance on this document. InterNACHI also makes no guarantee or warranty as to the accuracy or completeness of any information published herein.

Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances.

## 4. Inspection

### 4.1 Objective

The objective of an inspection is to provide written communication describing the issues discovered from observations made and research conducted by the inspector and that, in the inspector's opinion, are likely to be of interest to his/her client and to enhance the client's information and knowledge about the commercial property to improve decision-making for buying, selling, maintaining, or improving the property.

### 4.2 Who may perform the inspection

Any portion of the inspection, including the walk-through survey, research, and report generation, may be performed by the inspector, his/her staff, or any consultant hired by the inspector. This standard recognizes that, for the majority of commercial inspections, the inspector is likely an individual with a general, well-rounded knowledge of commercial properties, and that the inspector or client may want to augment the inspector's skills with specialty consultants who have particular expertise in certain areas. The decision to hire specialty consultants will, of course, rely on budget and time constraints, as well as the risk tolerance of the client.

### 4.3 Varying levels of due diligence

This standard is designed as a baseline from which the inspector and client can develop and agree to a scope of work that may deviate from this standard depending on budget, time constraints, purpose of the inspection, age of the subject property, and risk tolerance of the client. The level of due diligence should be set where the cost, in time and money, of acquiring information about the subject property will not likely exceed the value of that information. Therefore, an inspection performed in accordance with this standard will not be technically exhaustive.

#### 4.3.1 Sample language for use when defining the scope of work

"The inspection will be performed in accordance with InterNACHIcomsop except that... "

#### 4.3.2 Representative observations

In recognizing that the client likely has the goal of acquiring information about the subject property at a cost, in time and money, that does not exceed the value of that information, representative observations are not just permitted by this standard, but recommended, as well.

### 4.4 Uncertainty

The client should understand that no inspection report is completely accurate. A report is only the written communication of the observations made and research conducted by the inspector. The report contains those items which in the inspector's opinion are likely to be of interest to his/her client.

### 4.5 Subjectivity

The client should understand that the inspection report is, to a large degree, the subjective opinions of the inspector based on his/her observations and research within the limits of access, time, and budget, and without the aid of special equipment or meters, and without dismantling, probing, testing, or troubleshooting, and without detailed knowledge of the commercial property, its components or its systems. The inspection report is not much more than a subjective professional opinion.

### 4.6 Not an architectural or engineering service

An inspector performing a commercial inspection in accordance with this standard is not practicing architecture or engineering.

### 4.7 Not a warranty, guarantee or insurance policy

The inspection is not a warranty and the inspection report is merely the written communication of the inspector's subjective opinion on the condition of the subject property.

## 5. Research

### 5.1 Objective

The objective of research, including the review of documents and the performing of interviews, is to augment the information obtained during the walk-through survey and to provide supporting documentation to the inspection report.

### 5.2 Document procurement

It is the client's responsibility to obtain copies of all documents and provide them for the inspector. These documents are most often obtained from the seller or from local government offices. The inspector is not responsible for gathering or paying for copies of appropriate documents to be reviewed unless these tasks are specifically assigned to the inspector in the scope of work agreement.

### 5.3 Documents to be reviewed and included in the inspection report

The inspector should review all documents provided by the client and owner. The inspector should also make an inquiry and review of any other documents that can be reasonably procured on-site or from the building owner or manager, such as Certificates of Occupancy, building code violation notices, repair invoices, and warranties. The inspector is not required to uncover and review information that is not provided or cannot be reasonably ascertained or acquired on-site. Copies of documents that the inspector believes may be of interest to the client and copies of documents that support the inspector's opinions should be included in the inspection report.

#### 5.3.1 Examples of documents the inspector may want to request for review

- Accessibility surveys
- Appraisals
- Building plans
- Certificates of Occupancy
- Citations
- Deck age records, plans and construction permits
- Deck and balcony maintenance, power washing, painting, treating, repair and modification history
- Emergency evacuation plans
- Environmental studies
- Evacuation drill records
- Fire detection test and maintenance records
- Fire door inspection reports
- Fire prevention plans
- Fire extinguisher service records
- Fire records
- Flame-resistant certificates
- Flood plain maps
- Floor plans
- Kitchen grease cleaning records
- Kitchen post-fire inspections
- Maintenance records
- Manufacturer's installation instructions
- Notices
- Permits
- Power washing records
- Previous inspection reports
- Proposals
- Rent records
- Repair estimates/invoices

*(continued next page)*

- Safety inspection records
- Seller disclosures
- Sprinkler head replacement records
- Utility bills
- Warranties

#### 5.4 Interviews

The inspector should identify and interview the person(s) with the most knowledge about the condition of the building. Typically, this will be the building owner or manager. Unless otherwise agreed to in the Scope of Work agreement, it is the responsibility of the client to arrange to have this person(s) on hand for interview by the inspector on the day of the walk-through survey.

#### 5.5 Pre-inspection questionnaires

The inspector may request that the owner, building manager and/or client fill out pre-inspection questionnaires to gather information. The inspector may rely that these responses are truthful. In cases where parties refuse to fill out questionnaires in writing, the inspector may interview the parties and fill out the questionnaires for them. The inspector should note in the report if he/she filled out the questionnaire based on an interview and whether such interview was performed in person, by telephone, or by email. Copies of all responses to such questionnaires should be included in the inspection report.

#### 5.6 Reliance

The level of accuracy of information varies depending on its source. The inspector may rely on information obtained to the extent that the information appears to be accurate and complete. This standard does not require the inspector to independently verify the accuracy of the documents reviewed by the inspector or included in the report, nor the statements made by those interviewed by the inspector.

#### 5.7 Fraud

The inspector is not a fraud investigator and this standard does not require the inspector to look for intentionally hidden deficiencies in the subject property. The inspection report is supplementary to the seller's disclosures.

#### 5.8 Previously generated reports

A previously generated inspection report should be treated no differently than any other document reviewed during the research portion of the inspection and, like information collected from any other source, information obtained from a previously generated report should reference its source in the new inspection report. No portion of a previously generated report should be used as a substitute for the new inspection report.

## 6. Walk-Through Survey

### 6.1 Objective

The objective of the walk-through survey is to allow the inspector to visually observe the subject property, gather information and note items of interest.

### 6.2 Access responsibility

It is the client's responsibility to arrange for the inspector to receive timely access to the subject property for the walk-through survey portion of the inspection and access to all documents and interviewees needed for the research portion of the inspection. This includes access to all documents, information, and previously generated reports in the client's possession. The inspector is not responsible for obtaining, reviewing, or providing information should the source withhold, impede or delay access. Anything that hinders the inspector's access should be noted in the report.

### 6.3 Revisits

It is expected that the inspector will perform only one walk-through survey per inspection report. However, it may be necessary for the inspector to revisit certain areas of the subject building after performing the research portion of the inspection.

### 6.4 Inspector safety

It is the responsibility of the inspector to perform the walk-through survey safely.

### 6.5 Observations

#### 6.5.1 Roof

I. The inspector should inspect from ground level, or eaves or roof top (if a roof top access door exists):

- A. the roof covering.
- B. for presence of exposed membrane.
- C. slopes.
- D. for evidence of significant ponding.
- E. the gutters.
- F. the downspouts.
- G. the vents, flashings, skylights, chimney and other roof penetrations.
- H. the general structure of the roof from the readily accessible panels, doors or stairs.
- I. for the need for repairs.

II. The inspector is not required to:

- A. walk on any pitched roof surface.
- B. predict service life expectancy.
- C. inspect underground downspout diverter drainage pipes.
- D. remove snow, ice, debris or other conditions that prohibit the observation of the roof surfaces.
- E. move insulation.
- F. inspect antennae, lightning arresters, de-icing equipment or similar attachments.
- G. walk on any roof areas that appear, in the opinion of the inspector, to be unsafe.
- H. walk on any roof areas if it might, in the opinion of the inspector, cause damage.
- I. perform a water test.
- J. warrant or certify the roof.
- K. walk on any roofs that lack rooftop access doors.

## 6.5.2 Exterior

## I. The inspector should inspect:

- A. the siding, flashing and trim.
- B. all exterior doors, decks, stoops, steps, stairs, porches, railings, eaves, soffits and fascias.
- C. and report as in need of repair any safety issues regarding intermediate balusters, spindles, or rails for steps, stairways, balconies, and railings.
- D. a representative number of windows.
- E. the vegetation, surface drainage and retaining walls when these are likely to adversely affect the structure.
- F. the exterior for accessibility barriers.
- G. the storm water drainage system.
- H. the general topography.
- I. the parking areas.
- J. the sidewalks.
- K. exterior lighting.
- L. the landscaping.
- M. and determine that a 3-foot clear space exists around the circumference of fire hydrants.
- N. and describe the exterior wall covering.

## II. The inspector is not required to:

- A. inspect or operate screens, storm windows, shutters, awnings, fences, outbuildings, or exterior accent lighting.
- B. inspect items including window and door flashings, which are not visible or readily accessible from the ground.
- C. inspect geological, geotechnical, hydrological and/or soil conditions.
- D. inspect recreational facilities.
- E. inspect seawalls, break-walls and docks.
- F. inspect erosion control and earth stabilization measures.
- G. inspect for proof of safety-type glass.
- H. determine the integrity of the thermal window seals or damaged glass.
- I. inspect underground utilities.
- J. inspect underground items.
- K. inspect wells or springs.
- L. inspect solar systems.
- M. inspect swimming pools or spas.
- N. inspect septic systems or cesspools.
- O. inspect playground equipment.
- P. inspect sprinkler systems.
- Q. inspect drain fields or drywells.
- R. inspect manhole covers.
- S. operate or evaluate remote-control devices or test door or gate operators.

## 6.5.3 Wood decks and balconies

## I. The inspector should inspect:

- A. with naked eye, for deck and balcony members that are noticeably out of level or out of plumb.
- B. for visible decay.
- C. for paint failure and buckling.
- D. for nail pullout (nail pop).
- E. for fastener rust, iron stain, and corrosion.
- F. and verify that flashing was installed on the deck side of the ledger board.
- G. for vertical members (posts) that have exposed end grains.
- H. for obvious trip hazards.
- I. for non-graspable handrails.
- J. railings for height less than the 36-inch minimum.\*
- K. guardrails and infill for openings that exceed the 4-inch maximum.\*
- L. open tread stairs for openings that exceed the 4-and-3/8-inch maximum.\*
- M. triangular area between guardrails and stairways for openings that exceed the 6-inch maximum.\*
- N. built-up and multi-ply beam spans for butt joints.

II. The inspector is not required to:

- A. discover insect infestation or damage.
- B. inspect, determine, or test the tightness or adequacy of fasteners.
- C. determine lumber grade.
- D. measure moisture content.
- E. inspect for or determine bending strength.
- F. inspect for or determine shear stress.
- G. determine lag screw or bolt shear values.
- H. calculate loads.
- I. determine proper spans or inspect for deflections.
- J. discover decay hidden by paint.
- K. verify that flashing has been coated to prevent corrosion.
- L. determine that post-to-footing attachments exist.
- M. dig below grade or remove soil around posts.
- N. crawl under any deck with less than 3 feet of headroom or remove deck skirting to acquire access.
- O. determine proper footing depth or frost line.
- P. verify proper footing size.
- Q. perform pick tests.
- R. perform or provide any architectural or engineering service.
- S. use a level or plumb bob.
- T. use a moisture meter.
- U. predict service life expectancy.
- V. verify compliance with permits, codes or formal standards.
- W. inspect for disabled persons accessibility barriers.
- X. determine if deck blocks, covers or hinders septic tank or plumbing access.
- Y. determine easement encroachment compliance.

#### 6.5.4 Basement, foundation and crawlspace

I. The inspector should inspect:

- A. the basement.
- B. the foundation.
- C. the crawlspace.
- D. the visible structural components.
- E. and report on the location of under-floor access openings.
- F. and report any present conditions or clear indications of active water penetration observed by the inspector;
- G. for wood in contact or near soil.
- H. and report any general indications of foundation movement that are observed by the inspector such as but not limited to: sheetrock cracks, brick cracks, out-of-square door frames, or floor slopes.
- I. and report on any cutting, notching and boring of framing members which may present a structural or safety concern.

II. The inspector is not required to:

- A. enter any crawlspaces that are not readily accessible or where entry could cause damage or pose a hazard to the inspector.
- B. move stored items or debris.
- C. operate sump pumps.
- D. identify size, spacing, span, location or determine adequacy of foundation bolting, bracing, joists, joist spans or support systems.
- E. perform or provide any engineering or architectural service.
- F. report on the adequacy of any structural system or component.

## 6.5.5 Heating and ventilation

## I. The inspector should inspect:

- A. multiple gas meter installations, such as a building with multiple tenant spaces, and verify that each meter is clearly and permanently identified with the respective space supplied.
- B. the heating systems using normal operating controls, and describe the energy source and heating method.
- C. and report as in need of repair heating systems which do not operate.
- D. and report if the heating systems are deemed inaccessible.
- E. and verify that a permanent means of access with permanent ladders and/or catwalks are present for equipment and appliances on roofs higher than 16 feet.
- F. and verify the presence of level service platforms for appliances on roofs with a 25 percent slope or greater.
- G. and verify that a luminaire and receptacle outlet is provided at or near the appliance.
- H. and verify that the system piping appears to be sloped to permit the system to be drained.
- I. for connectors, tubing and piping that might be installed in a way that exposes them to physical damage.
- J. wood framing for cutting, notching and boring that might cause a structural or safety issue.
- K. pipe penetrations in concrete and masonry building elements to verify that they are sleeved.
- L. exposed gas piping for identification by a yellow label marked "Gas" in black letters occurring at intervals of 5 feet or less.
- M. and determine if any appliances or equipment with ignition sources are located in public, private, repair or parking garages or fuel-dispensing facilities.
- N. and verify that fuel-fired appliances are not located in or obtain combustion air from sleeping rooms, bathrooms, storage closets or surgical rooms.
- O. for the presence of exhaust systems in occupied areas where there is a likelihood of excess heat, odors, fumes, spray, gas, noxious gases or smoke.
- P. and verify that outdoor air intake openings are located at least 10 feet from any hazardous or noxious contaminant sources such as vents, chimneys, plumbing vents, streets, alleys, parking lots or loading docks.
- Q. outdoor exhaust outlets for the likelihood that they may cause a public nuisance or fire hazard due to smoke, grease, gases, vapors or odors.
- R. for the potential of flooding and evidence of past flooding that could cause mold in ductwork or plenums.
- S. condensate drains.

## II. The inspector is not required to:

- A. inspect or evaluate interiors of flues or chimneys, fire chambers, heat exchangers, humidifiers, dehumidifiers, electronic air filters, solar heating systems, fuel tanks, safety devices, pressure gauges, or control mechanisms.
- B. determine the uniformity, temperature, flow, balance, distribution, size, capacity, BTU, or supply adequacy of the heating system.
- C. light or ignite pilot flames.
- D. activate heating, heat pump systems, or other heating systems when ambient temperatures or when other circumstances are not conducive to safe operation or may damage the equipment.
- E. override electronic thermostats.
- F. evaluate fuel quality.
- G. verify thermostat calibration, heat anticipation or automatic setbacks, timers, programs or clocks.
- H. inspect tenant-owned or maintained heating equipment.
- I. determine ventilation rates.
- J. perform capture and containment tests.
- K. test for mold.

### 6.5.6 Cooling

#### I. The inspector should inspect:

- A. multiple air-conditioning compressor installations, such as a building with multiple tenant spaces, and verify that each compressor is clearly and permanently identified with the respective space supplied.
- B. the central cooling equipment using normal operating controls.
- C. and verify that a luminaire and receptacle outlet is provided at or near the appliance.
- D. and verify that a permanent means of access with permanent ladders and/or catwalks are present for equipment and appliances on roofs higher than 16 feet.
- E. and verify the presence of level service platforms for appliances on roofs with a 25 percent slope or greater.
- F. wood framing for cutting, notching and boring that might cause a structural or safety issue.
- G. pipe penetrations in concrete and masonry building elements to verify that they are sleeved.
- H. piping support.
- I. for connectors, tubing and piping that might be installed in a way that exposes them to physical damage.
- J. for the potential of flooding and evidence of past flooding that could cause mold in ductwork or plenums.
- K. condensate drains.

#### II. The inspector is not required to:

- A. inspect or test compressors, condensers, vessels, evaporators, safety devices, pressure gauges, or control mechanisms.
- B. determine the uniformity, temperature, flow, balance, distribution, size, capacity, BTU, or supply adequacy of the cooling system.
- B. inspect window units, through-wall units, or electronic air filters.
- C. operate equipment or systems if exterior temperature is below 60 degrees Fahrenheit, or when other circumstances are not conducive to safe operation, or may damage the equipment.
- D. inspect or determine thermostat calibration, heat anticipation or automatic setbacks or clocks.
- E. examine electrical current, coolant fluids or gases, or coolant leakage.
- F. inspect tenant owned or maintained cooling equipment.
- G. test for mold.

### 6.5.7 Plumbing

#### I. The inspector should inspect:

- A. and verify the presence of and identify the location of the main water shut-off valve to each building.
- B. and verify the presence of a backflow prevention device if, in the inspector's opinion, a cross connection could occur between water distribution system and non-potable water or private source.
- C. the water heating equipment, including combustion air, venting, connections, energy source supply systems, seismic bracing, and verify the presence or absence of temperature-pressure relief valves and/or Watts 210 valves.
- D. and flush a representative number of toilets.
- E. and run water in a representative number of sinks, tubs, and showers.
- F. and verify that hinged shower doors open outward from the shower and have safety glass conformance stickers or indicators.
- G. the interior water supply including a representative number of fixtures and faucets.
- H. the drain, waste and vent systems, including a representative number of fixtures.
- I. and describe any visible fuel storage systems.
- J. the drainage sump pumps and test pumps with accessible floats.
- K. and describe the water supply, drain, waste and main fuel shut-off valves, as well as the location of the water main and main fuel shut-off valves.
- L. and determine if the water supply is public or private.
- M. the water supply by viewing the functional flow in several fixtures operated simultaneously and report any deficiencies as in need of repair.
- N. and report as in need of repair deficiencies in installation and identification of hot and cold faucets.
- O. and report as in need of repair mechanical drain-stops that are missing or do not operate if installed in sinks, lavatories and tubs.
- P. and report as in need of repair commodes that have cracks in the ceramic material, are improperly mounted on the floor, leak, or have tank components which do not operate.
- Q. piping support.

II. The inspector is not required to:

- A. determine the adequacy of the size of pipes, supplies, vents, traps, or stacks.
- B. ignite pilot flames.
- C. determine the size, temperature, age, life expectancy or adequacy of the water heater.
- D. inspect interiors of flues or chimneys, cleanouts, water softening or filtering systems, dishwashers, interceptors, separators, sump pumps, well pumps or tanks, safety or shut-off valves, whirlpools, swimming pools, floor drains, lawn sprinkler systems or fire sprinkler systems.
- E. determine the exact flow rate, volume, pressure, temperature, or adequacy of the water supply.
- F. verify or test anti-scald devices.
- G. determine the water quality or potability or the reliability of the water supply or source.
- H. open sealed plumbing access panels.
- I. inspect clothes washing machines or their connections.
- J. operate any main, branch or fixture valve.
- K. test shower pans, tub and shower surrounds or enclosures for leakage.
- L. evaluate the compliance with local or state conservation or energy standards, or the proper design or sizing of any water, waste or venting components, fixtures or piping.
- M. determine the effectiveness of anti-siphon, back-flow prevention or drain-stop devices.
- N. determine whether there are sufficient clean-outs for effective cleaning of drains.
- O. evaluate gas, liquid propane or oil storage tanks.
- P. inspect any private sewage waste disposal system or component within such a system.
- Q. inspect water treatment systems or water filters.
- R. inspect water storage tanks, pressure pumps, ejector pumps, or bladder tanks.
- S. evaluate wait time for hot water at fixtures, or perform testing of any kind on water heater elements.
- T. evaluate or determine the adequacy of combustion air.
- U. test, operate, open or close safety controls, manual stop valves and/or temperature or pressure-relief valves.
- V. examine ancillary systems or components, such as, but not limited to, those relating to solar water heating or hot water circulation.
- W. determine the presence or condition of polybutylene plumbing.

#### 6.5.8 Electrical

I. The inspector should inspect:

- A. the service drop/lateral.
- B. the meter socket enclosures.
- C. the service entrance conductors, and report on any noted conductor insulation or cable sheath deterioration;
- D. the means for disconnecting the service main.
- E. the service entrance equipment and report on any noted physical damage, overheating, or corrosion.
- F. and determine the rating of the service amperage.
- G. panelboards and overcurrent devices, and report on any noted physical damage, overheating, corrosion, or lack of accessibility or working space (minimum 30 inches wide, 36 inches deep, 78 inches high in front of panel) that would hamper safe operation, maintenance or inspection.
- H. and report on any unused circuit breaker panel openings that are not filled.
- I. and report on absent or poor labeling.
- J. the service grounding and bonding.
- K. a representative number of switches, receptacles, lighting fixtures and AFCI-protected receptacles. Although a visual inspection, the removal of faceplates or other covers or luminaires (fixtures) to identify suspected hazards is permitted.
- L. and report on any noted missing or damaged faceplates or box covers.
- M. and report on any noted open junction boxes or open wiring splices.
- N. and report on any noted switches and receptacles that are painted.
- O. and test all Ground Fault Circuit Interrupter (GFCI) receptacles and GFCI circuit breakers observed and deemed to be GFCIs during the inspection using a GFCI tester, where possible.
- P. and report the presence of solid conductor aluminum branch circuit wiring, if readily visible.
- Q. and report on any tested GFCI receptacles in which power was not present, polarity is incorrect, the cover is not in place, the ground fault circuit interrupter devices are not installed properly or do not operate properly, any evidence of arcing or excessive heat, or where the receptacle is not grounded or is not secured to the wall.
- R. and report the absence of smoke detectors.
- S. and report on the presence of flexible cords being improperly used as substitutes for the fixed wiring of a structure or running through walls, ceilings, floors, doorways, windows, or under carpets.

II. The inspector is not required to:

- A. insert any tool, probe or device into the main panelboard, subpanels, distribution panelboards, or electrical fixtures.
- B. operate electrical systems that are shut down.
- C. remove panelboard cabinet covers or dead front covers if they are not readily accessible.
- D. operate overcurrent protection devices.
- E. operate non-accessible smoke detectors.
- F. measure or determine the amperage or voltage of the main service equipment if not visibly labeled.
- G. inspect the fire or alarm system and components.
- H. inspect the ancillary wiring or remote control devices.
- I. activate any electrical systems or branch circuits which are not energized.
- J. operate or reset overload devices.
- K. inspect low voltage systems, electrical de-icing tapes, swimming pool wiring, or any time-controlled devices.
- L. verify the service ground.
- M. inspect private or emergency electrical supply sources, including but not limited to: generators, windmills, photovoltaic solar collectors, or battery or electrical storage facility.
- N. inspect spark or lightning arrestors.
- O. inspect or test de-icing equipment.
- P. conduct voltage drop calculations.
- Q. determine the accuracy of labeling.
- R. inspect tenant-owned equipment.
- S. inspect the condition of or determine the ampacity of extension cords.

#### 6.5.9 Fireplaces

I. The inspector should inspect:

- A. fireplaces, and open and close the damper doors if readily accessible and operable.
- B. hearth extensions and other permanently installed components.
- C. and report as in need of repair deficiencies in the lintel, hearth and material surrounding the fireplace, including clearance from combustible materials.

II. The inspector is not required to:

- A. inspect the flue or vent system.
- B. inspect the interior of chimneys or flues, fire doors or screens, seals or gaskets, or mantels.
- C. determine the need for a chimney sweep.
- D. operate gas fireplace inserts.
- E. light pilot flames.
- F. inspect automatic fuel feed devices.
- G. inspect combustion and/or make-up air devices.
- H. inspect heat distribution assists, whether gravity controlled or fan-assisted.
- I. ignite or extinguish fires.
- J. determine draft characteristics.
- K. move fireplace inserts, stoves, or firebox contents.
- L. determine adequacy of draft, perform a smoke test, or dismantle or remove any fireplace component.
- M. perform an NFPA inspection.
- N. perform a Phase I fireplace and chimney inspection.
- O. determine the appropriateness of any installation.

## 6.5.10 Attic ventilation and insulation

## I. The inspector should inspect:

- A. the insulation in unfinished spaces.
- B. the ventilation of attic spaces.
- C. mechanical ventilation systems.
- D. and report on the general absence or lack of insulation.

## II. The inspector is not required to:

- A. enter the attic or any unfinished spaces that are not readily accessible, or where entry could cause damage or pose a safety hazard to the inspector, in his or her opinion.
- B. move, touch, or disturb insulation.
- C. move, touch or disturb vapor retarders.
- D. break or otherwise damage the surface finish or weather seal on or around access panels and covers.
- E. identify the composition or exact R-value of insulation material.
- F. activate thermostatically operated fans.
- G. determine the types of materials used in insulation or wrapping of pipes, ducts, jackets, boilers, and wiring.
- H. determine the adequacy of ventilation.

## 6.5.11 Doors, windows and interior

## I. The inspector should:

- A. open and close a representative number of doors and windows.
- B. inspect the walls, ceilings, steps, stairways and railings.
- C. inspect garage doors and garage door openers.
- D. inspect interior steps, stairs and railings.
- E. inspect all loading docks.
- F. ride all elevators and escalators.
- G. and report as in need of repair any windows that are obviously fogged or display other evidence of broken seals.

## II. The inspector is not required to:

- A. inspect paint, wallpaper, window treatments or finish treatments.
- B. inspect central vacuum systems.
- C. inspect safety glazing.
- D. inspect security systems or components.
- E. evaluate the fastening of countertops, cabinets, sink tops and fixtures, or firewall compromises.
- F. move furniture or stored items, or any coverings such as carpets or rugs, in order to inspect the concealed floor structure.
- G. move drop-ceiling tiles.
- H. inspect or move any appliances.
- I. inspect or operate equipment housed in the garage, except as otherwise noted.
- J. verify or certify safe operation of any auto-reverse or related safety function of a garage door.
- K. operate or evaluate any security bar release and opening mechanisms, whether interior or exterior, including their compliance with local, state or federal standards.
- L. operate any system, appliance or component that requires the use of special keys, codes, combinations or devices.
- M. operate or evaluate self-cleaning oven cycles, tilt guards/latches, gauges, or signal lights.
- N. inspect microwave ovens or test leakage from microwave ovens.
- O. operate or examine any sauna, steam-jenny, kiln, toaster, ice-maker, coffee-maker, can-opener, bread-warmer, blender, instant hot water dispenser, or other ancillary devices.
- P. inspect elevators.
- Q. inspect remote controls.
- R. inspect appliances.
- S. inspect items not permanently installed.
- T. examine or operate any above-ground, movable, freestanding, or otherwise non-permanently installed pool/spa, recreational equipment or self-contained equipment.

*(continued on next page)*

- U. come into contact with any pool or spa water in order to determine the system structure or components.
- V. determine the adequacy of spa jet water force or bubble effect.
- W. determine the structural integrity or leakage of a pool or spa.
- X. determine combustibility or flammability.
- Y. inspect tenant-owned equipment or personal property.

#### 6.5.12 Life-safety

##### I. The inspector should:

- A. inspect fire access roads and report on any obstructions or overhead wires lower than 13 feet, 6 inches.
- B. inspect the address or street number to determine that it is visible from the street, with numbers in contrast to their background.
- C. inspect and determine that a 3-foot clear space exists around the circumference of fire hydrants.
- D. verify that hinged shower doors open outward from the shower and have safety glass conformance stickers or indicators.
- E. inspect to determine that the storage of flammable and combustible materials are orderly, separated from heaters by distance or shielding so that ignition cannot occur, and not stored in exits, boiler rooms, mechanical rooms, or electrical equipment rooms.
- F. inspect to determine that a "No Smoking" sign is posted in areas where flammable or combustible material is stored, dispensed, or used.
- G. inspect for the presence of fire alarm systems.
- H. inspect for alarm panel accessibility.
- I. inspect for the presence of portable extinguishers and determine that they are located in conspicuous and readily available locations, immediately available for use, and not obstructed or obscured from view.
- J. inspect to determine that a portable fire extinguisher exists within a 30-foot travel distance of commercial-type cooking equipment that uses cooking oil or animal fat.
- K. inspect to determine that manual actuation devices for commercial cooking appliances exist near the means of egress from the cooking area, 42-48 inches above the floor, 10-20 feet away, and clearly identifying the hazards protected.
- L. inspect to determine that the maximum travel distance to a fire extinguisher is 75 feet.
- M. inspect for the presence of sprinkler systems and determine if they were ever painted other than at the factory;
- N. inspect for the presence of emergency lighting systems.
- O. inspect for exit signs at all exits, and inspect for independent power sources such as batteries.
- P. inspect for the presence of directional signs where exit location is not obvious.
- Q. inspect for the presence of signs over lockable exit doors stating "This Door Must Remain Unlocked During Business Hours."
- R. inspect for penetrations in any walls or ceilings that separate the exit corridors and/or stairwells from the rest of the building.
- S. inspect for fire separation doors that appear to have been blocked or wedged open or that do not automatically close and latch.
- T. inspect exit stairwell handrails.
- U. inspect for exit trip hazards.
- V. inspect for the presence of at least two exits to the outside or one exit that has a maximum travel distance of 75 feet.
- W. inspect exit doorways to determine that they are not less than 32 inches in clear width.
- X. inspect to determine that the exit doors were not locked from the inside, chained, bolted, barred, latched or otherwise rendered unusable at the time of the inspection.
- Y. inspect to determine that the exit doors swing open in the direction of egress travel.
- Z. inspect the storage at the time of the inspections to determine if it is potentially obstructing access to fire hydrants, fire extinguishers, alarm panels, or electric panelboards, or if it is obstructing aisles, corridors, stairways or exit doors, or if it is within 18 inches of sprinkler heads, or if it is within 3 feet of heat-generating appliances or electrical panelboards at the time of the inspection.

II. The inspector is not required to:

- A. test alarm systems or determine if alarms systems have been tested.
- B. inspect or test heat detectors, fire suppression systems, or sprinkler systems.
- C. determine combustibility or flammability of materials or storage.
- D. determine the adequate number of fire extinguishers needed or their ratings.
- E. test or inspect fire extinguishers, their pressure, or for the presence of extinguisher inspection tags and/or tamper seals.
- F. inspect or test fire pumps or Fire Department connections.
- G. inspect or test cooking equipment suppression systems.
- H. determine the operational time of emergency lighting or exist signs.
- I. inspect for proper occupant load signs.
- J. determine fire ratings of walls, ceilings, doors, etc.
- K. inspect, test, or determine the adequacy of fire escapes or ladders.
- L. inspect Fire Department lock boxes or keys.
- M. determine flame resistance of curtains or draperies.
- N. inspect parking and/or outdoor lighting.
- O. inspect for unauthorized entry and/or crime issues.
- P. inspect or test security systems.
- Q. inspect for pet or livestock safety issues.
- R. inspect for unsafe candle use or decoration hazards.
- S. inspect or test emergency generators.
- T. test kitchen equipment, appliances, or hoods.
- U. verify that elevator keys exist or that they work properly.

6.5.13 Cooking area

I. The inspector should:

- A. verify that all smoke or grease-laden, vapor-producing cooking equipment such as deep-fat fryers, ranges, griddles, broilers, and woks, is equipped with an exhaust system.
- B. inspect exhaust system's interior surface cleaning and inspection accessibility.
- C. inspect for grease buildup.
- D. verify that hoods are made of steel or stainless steel.
- E. verify that visible grease filters are arranged so that all exhaust air passes through the filters.
- F. verify that visible sections of exhaust ducts are not interconnected with any other ventilation system.
- G. verify that visual sections of exhaust ducts are installed without dips or traps that might collect residue.
- H. verify that exhaust ducts do not appear to pass through fire walls.
- I. try to verify that exhaust ducts lead directly to the exterior of the building.
- J. try to verify that exterior exhaust outlets do not discharge into walkways or create a nuisance in the opinion of the inspector.
- K. inspect to determine that a portable fire extinguisher exists within a 30-foot travel distance of commercial-type cooking equipment that uses cooking oil or animal fat.
- L. inspect to determine that manual actuation devices for commercial cooking appliances exist near the means of egress from the cooking area, 42-48 inches above the floor, 10-20 feet away, and clearly identifying the hazards protected.

II. The inspector is not required to:

- A. determine proper clearances.
- B. determine proper hood size or position.
- C. test hoods.
- D. test exhaust fans, test dampers, or measure airflow.
- E. test fire extinguishers, fire-extinguishing equipment or fusible links.
- F. test kitchen equipment, appliances, hoods or their gauges.
- G. inspect or test grease removal devices, drip trays or grease filters.
- H. inspect or test air pollution control devices or fume incinerators.
- I. inspect or test kitchen refrigeration.
- J. inspect for fuel storage issues.
- K. inspect, test, or determine anything regarding food safety.

## 7. Report

### 7.1 Format

The report must be in writing. This standard does not require any one particular format. It is InterNACHI's opinion that the commercial inspection industry and consumer clients are best served when inspectors are free to compete through report generation innovation.

### 7.2 Date

The report should be dated on the first page of the report.

### 7.3 Inspection firm information

The report should include the name and contact information of the inspection firm on the first or second page.

### 7.4 Property address

The report should include the address of the property inspected or a description of the real estate sufficient for identification on the first or second page.

### 7.5 Total number of pages

The report should indicate the total number of pages and attachments on the first page of the report.

### 7.6 Brevity

Reports should be concise, to the point, and avoid the inclusion of large amounts of pre-printed material.

### 7.7 Legibility

Reports should be typed or handwritten clearly.

### 7.8 Opinions of shutdown systems

The inspector should still try to render an opinion of the condition of systems even if they were shutdown or were not operational at the time of the walk-through survey.

### 7.9 Obsolescence

The client should only rely on the inspection report at the point in time that the inspector's observations were being made and research was being conducted. The client should deem the report as obsolete to some extent, even while it is being prepared.

### 7.10 Site-specific

The client should understand that an inspection performed in accordance with this standard only relates to the observations made and research conducted. Consequently, this standard does not address issues such as business operations at the subject property, deed encumbrances, neighborhood conditions, etc.

### 7.11 Multiple buildings

An inspection report produced in accordance with this standard may encompass more than one building within a single report.

### 7.12 Cost to remedy

The inspector is not required to provide repair estimates or opinions of costs to remedy. The inspector may offer opinions about such costs as a courtesy, but the offering of these opinions is outside the scope of a commercial inspection.

## 8. Limitations, Exceptions and Exclusions

### 8.1. Limitations:

- I. An inspection is not technically exhaustive.
- II. An inspection will not identify concealed or latent defects.
- III. An inspection will not deal with aesthetic concerns or what could be deemed matters of taste, cosmetic defects, etc.
- IV. An inspection will not determine the suitability of the property for any use.
- V. An inspection does not determine the market value of the property or its marketability.
- VI. An inspection does not determine the insurability of the property.
- VII. An inspection does not determine the advisability or inadvisability of the purchase of the inspected property.
- VIII. An inspection does not determine the life expectancy of the property or any components or systems therein.
- IX. An inspection does not include items not permanently installed.
- X. These Standards of Practice apply only to commercial properties.

### 8.2. Exclusions:

#### I. The inspectors are not required to determine:

- A. property boundary lines or encroachments.
- B. the condition of any component or system that is not readily accessible.
- C. the service life expectancy of any component or system.
- D. the size, capacity, BTU, performance, or efficiency of any component or system.
- E. the cause or reason of any condition.
- F. the cause of the need for repair or replacement of any system or component.
- G. future conditions.
- H. the compliance with codes or regulations.
- I. the presence of evidence of rodents, animals or insects.
- J. the presence of mold, mildew or fungus.
- K. the presence of air-borne hazards.
- L. the presence of birds.
- M. the presence of other flora or fauna.
- N. the air quality.
- O. the presence of asbestos.
- P. the presence of environmental hazards.
- Q. the presence of electro-magnetic fields.
- R. the presence of hazardous materials including, but not limited to, the presence of lead in paint.
- S. any hazardous waste conditions.
- T. any manufacturer's recalls or conformance with manufacturer's installation, or any information included for consumer protection purposes.
- U. operating costs of systems.
- V. replacement or repair cost estimates.
- W. the acoustical properties of any systems.
- X. estimates of the cost of operating any given system.
- Y. resistance to wind, hurricanes, tornadoes, earthquakes or seismic activities.
- Z. geological conditions or soil stability.
- AA. Americans with Disabilities Act compliance.

II. The inspectors are not required to operate:

- A. any system that is shut down.
- B. any system that does not function properly.
- C. or evaluate low voltage electrical systems such as, but not limited to:
  - 1. phone lines;
  - 2. cable lines;
  - 3. antennae;
  - 4. lights;
  - 5. remote controls.
- D. any system that does not turn on with the use of normal operating controls.
- E. any shut-off valves or manual stop valves.
- F. any electrical disconnect or over-current protection devices.
- G. any alarm systems.
- H. moisture meters, gas detectors or similar equipment.
- I. sprinkler or fire suppression systems.

III. The inspectors are not required to:

- A. move any personal items or other obstructions, such as, but not limited to:
  - 1. throw rugs.
  - 2. furniture.
  - 3. floor or wall coverings.
  - 4. ceiling tiles.
  - 5. window coverings.
  - 6. equipment.
  - 7. plants.
  - 8. ice.
  - 9. debris.
  - 10. snow.
  - 11. water.
  - 12. dirt.
  - 13. foliage.
  - 14. pets.
- B. dismantle, open, or uncover any system or component.
- C. enter or access any area which may, in the opinion of the inspector, be unsafe.
- D. enter crawlspaces or other areas that are unsafe or not readily accessible.
- E. inspect or determine the presence of underground items such as, but not limited to, underground storage tanks, whether abandoned or actively used.
- F. do anything which, in the inspector's opinion, is likely to be unsafe or dangerous to the inspector or others or damage property, such as, but not limited to, walking on roof surfaces, climbing ladders, entering attic spaces, or interacting with pets or livestock.
- G. inspect decorative items.
- H. inspect common elements or areas in multi-unit housing.
- I. inspect intercoms, speaker systems, radio-controlled security devices or lawn irrigation systems.
- J. offer guarantees or warranties.
- K. offer or perform any engineering services.
- L. offer or perform any trade or professional service other than commercial property inspection.
- M. research the history of the property, report on its potential for alteration, modification, extendibility, or its suitability for a specific or proposed use for occupancy.
- N. determine the age of construction or installation of any system structure, or component of a building, or differentiate between original construction and subsequent additions, improvements, renovations or replacements thereto.
- O. determine the insurability of a property.
- P. perform or offer Phase 1 environmental audits.
- Q. inspect or report on any system or component which is not included in these standards.

## 9. Ethics

Inspectors performing inspections in accordance to this standard must maintain a high level of business ethics.

### 9.1 Duty to client

9.1.1 The inspector shall substantially follow this standard unless the scope of work indicates otherwise.

9.1.2 The inspector shall not engage in any practices that could be damaging to the client or bring discredit to the inspection industry.

9.1.3 The inspector shall be fair, honest, impartial, and act in good faith in dealing with the client.

9.1.4 The inspector shall not discriminate on the basis of race, color, religion, sex, national origin, familial status, or handicap, and shall comply with all federal, state and local laws concerning discrimination.

9.1.5 The inspector member shall be truthful regarding his/her services and qualifications.

9.1.6 The inspector shall have no undisclosed conflict of interest with the client, nor shall the inspector accept or offer any undisclosed commissions, rebates, profits or other benefit, nor shall the inspector accept or offer any disclosed or undisclosed commissions, rebates, profits or other benefit from real estate agents, brokers or any third parties having financial interest in the sale of the property, nor shall the inspector offer or provide any disclosed or undisclosed financial compensation directly or indirectly to any real estate agent, real estate broker or real estate company for referrals or for inclusion on lists of preferred and/or affiliated inspectors or inspection companies.

9.1.7 The inspector shall not communicate any information about an inspection to anyone except the client without the prior written consent of the client, except in cases when the information may affect the safety of others, or violates a law or statute.

9.1.8 The inspector shall always act in the interest of the client, unless doing so violates a law or statute.

9.1.9 The inspector shall use a written scope of work agreement that specifies the services to be performed, the limitations of services, and fees.

9.1.10 The inspector shall comply with all government rules and licensing requirements in the jurisdiction where he/she conducts business.

9.1.11 The inspector shall not perform or offer to perform, for an additional fee, any repairs or associated services to the structure for which the inspector or inspector's company has prepared a commercial inspection report, for a period of 12 months. This provision shall not include services to components and/or systems which are not included in this standard.

## 10. Commercial Inspection Agreement (between inspector and client)

The address of the property is:

\_\_\_\_\_.

Fee for the commercial inspection is \$ \_\_\_\_\_. INSPECTOR acknowledges receiving a deposit of \$ \_\_\_\_\_ from CLIENT.

THIS AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between

\_\_\_\_\_ (Hereinafter "INSPECTOR") and the undersigned (hereinafter "CLIENT"), collectively referred to herein as "the parties."

The Parties understand and voluntarily agree as follows:

1. INSPECTOR agrees to perform a visual inspection of the commercial building and to provide CLIENT with a written inspection report identifying the defects that INSPECTOR both observed and deemed material. Where accessible, INSPECTOR will view a representative sample of the building components covered under this inspection to be used in the preparation of the written inspection report. INSPECTOR will not test or otherwise analyze elements of the commercial building where destruction or dismantling of the particular element is required. The primary purpose of the inspection is to enhance the CLIENT'S information and knowledge about the commercial building to improve decision-making for buying, selling, maintaining, or improving the property. As it may relate to this commercial building inspection, INSPECTOR may offer comments as a courtesy, but these comments will not comprise the bargained-for report. The report is only supplementary to the seller's disclosures.
2. Unless otherwise inconsistent with this Agreement or not possible, INSPECTOR agrees to perform the inspection in accordance with InterNACHI's International Standards of Practice for Inspecting Commercial Properties. Although INSPECTOR agrees to follow these standards, CLIENT understands that these standards contain certain limitations, exceptions, and exclusions. CLIENT also understands that InterNACHI is not a party to this Agreement and that InterNACHI has no control over INSPECTOR or representations made by INSPECTOR and does not supervise INSPECTOR. As noted above, this commercial building inspection is visual only. In certain instances, INSPECTOR may engage or deploy certain mechanical or other systems in the commercial building for purposes of preparing the written inspection report. However, it is not possible to engage or deploy many systems in a commercial building, including fire-suppression systems, and thus determination of whether such systems are properly functioning or otherwise in need of repair, replacement or maintenance is beyond the scope of this basic commercial building inspection. The SCOPE OF WORK outlining the specific elements of the commercial building to be inspected by INSPECTOR under this Agreement is attached hereto and incorporated by reference as EXHIBIT A. Where noted in the written inspection report, INSPECTOR may recommend, and CLIENT acknowledges that such may be necessary, that CLIENT hire a professional engineer, or other qualified and licensed professional, to provide an independent inspection and analysis of certain elements that may be beyond the scope of this basic commercial building inspection. Unless otherwise indicated below, CLIENT understands that this basic commercial building inspection EXCLUDES compliance with applicable building codes or testing for the presence of potential dangers arising from asbestos, lead paint, formaldehyde, molds, radon gas, soil contamination, and other environmental hazards or violations.
3. The inspection and report are performed and prepared for the use of CLIENT, who gives INSPECTOR permission to discuss observations with real estate agents, owners, repair persons, and other interested parties. INSPECTOR accepts no responsibility for use or misinterpretation by third parties. INSPECTOR'S inspection of the property and the accompanying report are in no way intended to be a guarantee or warranty, express or implied, regarding the future use, operability, habitability or suitability of the commercial building or its components. Any and all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, are expressly excluded by this Agreement to the fullest extent allowed by law. If any structure or portion of any structure that is to be inspected pursuant to this Agreement is a log home, log structure or similar log construction, CLIENT understands that such structures have unique characteristics that make it impossible for an inspector to inspect and evaluate them by an exterior visual inspection. Therefore, the scope of the inspection to be performed pursuant to this Agreement does not include decay of the interior of logs in log walls, log foundations or roofs or similar defects that are not visible by an exterior visual inspection.

*(continued on next page)*

4. INSPECTOR assumes no liability for the cost of repair or replacement of unreported defects or deficiencies either current or arising in the future. CLIENT acknowledges that the liability of INSPECTOR, its agents, employees, for claims or damages, costs of defense or suit, attorney's fees and expenses, and payments arising out of or related to the INSPECTOR'S negligence or breach of any obligation under this Agreement, including errors and omissions in the inspection or the report, shall be limited to liquidated damages in an amount equal to the fee paid to the INSPECTOR, and this liability shall be exclusive. CLIENT waives any claim for consequential, exemplary, special or incidental damages or for the loss of the use of the commercial building even if the CLIENT has been advised of the possibility of such damages. The parties acknowledge that the liquidated damages are not intended as a penalty but are intended (i) to reflect the fact that actual damages may be difficult and impractical to ascertain; (ii) to allocate risk among the INSPECTOR and CLIENT; and (iii) to enable the INSPECTOR to perform the inspection at the stated fee.

5. INSPECTOR does not perform engineering, architectural, plumbing, or any other job function requiring an occupational license in the jurisdiction where the inspection is taking place, unless the inspector holds a valid occupational license, in which case he/she may inform the CLIENT that he/she is so licensed, and is therefore qualified to go beyond this basic commercial building inspection and, for additional fee, perform additional inspections beyond those within the scope of the basic commercial building inspection. Any agreement for such additional inspections shall be in a separate writing or noted here:

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6. In the event of a claim against INSPECTOR, CLIENT agrees to supply INSPECTOR with the following: (1) Written notification of adverse conditions within 14 days of discovery, and (2) Access to the premises. Failure to comply with the above conditions will release INSPECTOR and its agents from any and all obligations or liability of any kind. Additionally, if there is a dispute between INSPECTOR and any consultant or third party arising out of INSPECTOR'S inspection, CLIENT agrees to provide INSPECTOR with reasonable access to the premises upon request by the INSPECTOR.

7. The parties agree that any litigation arising out of this Agreement shall be filed only in the Court having jurisdiction in the County in which the INSPECTOR has its principal place of business. In the event that CLIENT fails to prove any adverse claims against INSPECTOR in a court of law, CLIENT agrees to pay all legal costs, expenses and fees of INSPECTOR in defending said claims. CLIENT further understands that any legal action against InterNACHI itself allegedly arising out of this Agreement or INSPECTOR's relationship with InterNACHI must be brought only in the District Court of Boulder County, Colorado.

8. If any court declares any provision of this Agreement invalid or unenforceable, the remaining provisions will remain in effect. This Agreement represents the entire agreement between the parties. All prior communications are merged into this Agreement, and there are no terms or conditions other than those set forth herein. No statement or promise of INSPECTOR or its agents shall be binding unless reduced to writing and signed by INSPECTOR. No change or modification shall be enforceable against any party unless such change or modification is in writing and signed by the parties. This Agreement shall be binding upon and enforceable by the parties and their heirs, executors, administrators, successors and assignees. CLIENT shall have no cause of action against INSPECTOR after one year from the date of the inspection.

9. Payment of the fee to INSPECTOR (less any deposit noted above) is due upon completion of the on-site, walk-through survey portion of the inspection. The CLIENT agrees to pay all legal and time expenses incurred in collecting due payments, including attorney's fees, if any. If CLIENT is a corporation, LLC, or similar entity, the person signing this Agreement on behalf of such entity does personally guarantee payment of the fee by the entity. If CLIENT requests a re-inspection, the re-inspection is also subject to all the terms and conditions set forth in this agreement.

CLIENT HAS CAREFULLY READ THE FOREGOING, AGREES TO IT, AND ACKNOWLEDGES RECEIPT OF A COPY OF THIS AGREEMENT.

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FOR INSPECTOR

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CLIENT OR REPRESENTATIVE

EXHIBIT A  
SCOPE OF WORK

Under this Agreement and as part of this basic commercial building inspection, INSPECTOR and CLIENT agree that the following elements shall be inspected pursuant to the noted limitations:

**11. Request for Documents and Person(s) with Knowledge (sample language for inspector to send to client)**

Dear CLIENT

Thank you for having INSPECTOR FIRM inspect the property at COMMERCIAL PROPERTY ADDRESS. On the day of the walk-through survey scheduled for DATE OF WALK-THROUGH SURVEY, I will be doing some research including the review of documents and the performing of interviews to augment the information obtained during the walk-through survey and to provide supporting documentation to the inspection report.

In preparation of the walk-through survey portion of the inspection, please have the seller provide me copies of as many of the following documents as can be reasonably procured:

accessibility surveys, appraisals, building plans, Certificates of Occupancy, citations, deck age records, plans and construction permits, deck and balcony maintenance, power washing, painting, treating, repair and modification history, emergency evacuation plans, environmental studies, evacuation drill records, fire-detection test and maintenance records, fire door inspection reports, fire prevention plans, fire extinguisher service records, fire records, flame resistant certificates, flood plain maps, floor plans, kitchen grease cleaning records, kitchen post-fire inspections, maintenance records, manufacturer's installation instructions, notices, permits, power washing records, previous inspection reports, proposals, rent records, repair estimates/invoices, safety inspection records, seller disclosures, sprinkler head replacement records, utility bills and warranties.

I would also like to interview the person(s) with the most knowledge about the condition of the building. Please arrange to have this person(s) on hand on the day of the walk-through survey.

Thank you.

INSPECTOR SIGNATURE

INSPECTOR NAME

## 12. Professional Services Contract (between inspector and special consultant)

This PROFESSIONAL SERVICES CONTRACT ("Contract"), made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, is entered by and between \_\_\_\_\_, a professional home or building inspector (referred to herein as the "Inspector"), and \_\_\_\_\_, a professional consultant licensed or certified in the field of \_\_\_\_\_ ("Consultant"), for the solicitation and delivery of professional consulting services as more specifically set forth in the following terms and conditions of this Contract.

### RECITALS

WHEREAS, this Contract relates to the inspection of a structure (referred to herein as the "Property") located at the following address: \_\_\_\_\_, and

WHEREAS, this Contract is made in conjunction with the Inspector's separate contract with a third-party client ("Client") for a general inspection of a residential or commercial building, and

WHEREAS, the Inspector requires the professional services (referred to herein as "Services") of the Consultant as described in the "Statement of Work," attached hereto and incorporated into this Contract as "Exhibit A," in the performance of the general inspection for the Client, and

WHEREAS, the Inspector intends to utilize the work product produced in the course of the Services as described herein to assist in the general inspection of the Property and the preparation of a written inspection report for the Client, and

WHEREAS, the Inspector is a member of the National Association of Certified Home Inspectors ("InterNACHI"), but InterNACHI is not a party to this Contract and the Consultant acknowledges that InterNACHI is not a party to this Contract and that InterNACHI has no control over the Inspector or representations made by the Inspector and does not supervise the Inspector, and

WHEREAS, the Inspector seeks to hire an outside Consultant to perform these Services, and the Consultant is available and prepared to provide the required Services, and

WHEREAS, both parties agree to the rendering of such Services on the terms and conditions hereinafter set forth.

NOW, THEREFORE, the parties hereto agree as follows:

1. **PURPOSE AND SCOPE.** The Inspector engages the Consultant to perform the Services herein described in this Contract to assist the Inspector in the inspection of the Property and to supplement the Inspector's written inspection report to his third-party Client. The Consultant agrees to faithfully and diligently perform the Services consistent with the standards of practice in the Consultant's professional community and, in return, the Inspector covenants to use best efforts to cooperate with the Consultant in the completion of such Services, and to honor the compensation provisions outlined herein. The Consultant shall proceed with the Services upon execution of this Contract by both parties.

#### 2. PERFORMANCE OF SERVICES.

**A. Independent Contractor.** The Consultant is an independent contractor and shall not be considered an employee of the Inspector. Accordingly, the Consultant is not subject to the direct control of the Inspector. In the performance of the Services, the Consultant retains the right to control the methods and means of performance. Consultant understands that Inspector does not carry and insurance that would cover any injury suffered by Consultant while performing his duties as required by this Contract.

**B. Consultant's Personnel.** The Inspector acknowledges and authorizes the Consultant to engage the assistance of persons either under the Consultant's employ or acting as independent contractors to complete certain components of the Services contemplated by this Contract.

**C. Hiring of Sub-contractors.** The Inspector authorizes the Consultant to hire other professionals or experts, as may be required from time to time, to complete the Services contemplated under this Contract. Should additional expenses or fees apply beyond the fees contemplated herein, the Consultant agrees to seek prior approval from the Inspector, and the parties shall execute a written agreement to reflect such new payment or fee requirements.

### 3. PAYMENTS AND EXPENSES.

A. "Flat Fee" Contract. For professional services rendered by the Consultant, the Inspector agrees to pay the Consultant a flat fee of \$\_\_\_\_\_.

B. Expenses. In addition to payments described in this paragraph, the Inspector agrees to reimburse the Consultant for actual expenses agreed to by the parties in writing and in advance of incurring such expenses.

C. Method of Payment. The Consultant shall submit a written request for payment upon completion of the Services. Upon receipt of such payment request, the Inspector will then cause payment to be made to the Consultant not later than ten (10) days after receipt of such request.

### 4. RESPONSIBILITIES OF THE PARTIES.

A. Inspector. The Inspector agrees to cooperate with the Consultant and grant access to the property, information and documentation controlled by the Inspector with the Client's authorization. The Inspector hereby agrees that it will make available to the Consultant in the performance of Services herein, whether public or private, all reports, references, documentation, or other information held by the Inspector on behalf of the Client that is necessary for the Consultant to complete the Services contemplated herein.

B. Consultant. The Consultant agrees to diligently and professional perform the Services herein. The Consultant agrees not to communicate directly with the Client, and all such information, documentation, or communication resulting from the performance of the Services herein shall be directed only to the Inspector. The Consultant acknowledges that the relationship between the Inspector and the Client is private and confidential, and agrees not to interfere in any way with such relationship. Further, the Consultant grants the Inspector all rights to the work product resulting from the performance of Services under this Contract, and acknowledges that the Inspector may elect to deliver all, part or none of said work product to the Client, and the Consultant expressly grants the Inspector permission to discuss the work product of the Consultant's Services hereunder with the Inspector's Client and other real estate agents, owners, repair persons, and other interested parties. The Inspector accepts no responsibility for use or misinterpretation by third parties of the Consultant's work product hereunder.

5. **TERM.** Upon execution by the undersigned parties, this Contract shall become effective and enforceable by both parties upon the latest date signed by either party, and shall continue in full force and effect through the completion of all Services, unless terminated earlier by operation of and in accordance with this Contract. This Contract may only be extended thereafter by mutual written agreement of the parties.

6. **TERMINATION.** This Contract may not be canceled or terminated except for cause upon the default or material breach by the other party. Written notice of termination or cancellation shall be delivered immediately upon determination of default and shall be made to the other party according to the notice provisions established herein. Upon termination, this Contract shall become of no further force or effect whatsoever and each of the parties hereto shall be relieved and discharged here from, subject to payment for Services rendered prior to such termination. Notwithstanding the foregoing, the provisions of this Contract concerning confidentiality, indemnification, jurisdiction, and severability shall survive termination of this Contract.

### 7. DEFAULT AND REMEDIES.

A. Default. The failure to perform any obligation required under this Contract shall constitute default.

B. Remedies. Upon said breach or default and notice of termination, the party in default must immediately commence to cure such breach to avoid termination or cancellation of this Contract. Failure to cure said default within seven (7) days of notice of termination will result in cancellation of this Contract.

8. **WORK PRODUCT.** All documents, reports, records, notes, data, samples, information, processes, and materials of any kind resulting from the performance of Services under this Contract shall jointly become the property of both the Consultant and the Inspector. Such parties may use such information, etc., as necessary under this Contract so long as none of its provisions are violated by such use.

9. **FORCE MAJURE.** Neither party shall be liable to the other for failure to perform under this Contract if such failure to perform arises out of causes beyond the control and without the fault or negligence of the nonperforming party. Such causes may include, but are not limited to, acts of God or the public enemy, fires, floods, epidemics, quarantine restrictions, freight embargoes, and unusually severe weather.

10. **INDEMNIFICATION.** The Consultant shall indemnify, defend and hold harmless the Inspector and its officers, agents, employees, successors and assignees from any and all claims, lawsuits, losses and liability arising out of failure to perform any of the Consultant's duties and obligations hereunder or in connection with the negligent performance of the Consultant's duties or obligations, including but not limited to any claims, lawsuits, losses or liability arising out of the Consultant's malfeasance. Concurrently, the Inspector shall indemnify, defend and hold harmless the Consultant and its officers, agents, employees, successors and assignees from any and all claims, lawsuits, losses and liability arising out of failure to perform any of the Inspector's duties and obligations hereunder or in connection with the negligent performance of the Inspector's duties or obligations, including but not limited to any claims, lawsuits, losses or liability arising out of the Inspector's malfeasance.

11. **CONFIDENTIALITY.** Both parties agree to keep confidential all documents, data compilations, reports, computer programs, and any other information provided under this Contract from one party to the other party. Neither party shall reveal such confidential information to any person or entity, either during the term of this Contract or at any time thereafter. Upon expiration of this Contract, or termination as provided herein, each party will return materials which contain any confidential information to the other party. Each party may keep one copy for its confidential file. For purposes of this paragraph, confidential information is defined as all information disclosed to the Consultant which relates to the Inspector's past, present, and future activities, as well as activities under this Contract, which information is not otherwise of public record. Concurrently, the Inspector acknowledges that the work product of the Consultant is a valuable asset and agrees to keep confidential all such information relating to the Consultant.

12. **WARRANTIES.** Performance of the mutual promises and covenants herein creates no express or implied warranties, and each party shall in no way be responsible or otherwise liable for any consequential damages that may arise under this Contract.

13. **DISPUTES.** The parties shall make a good faith effort to settle any dispute or claim arising under this Contract prior to engaging in litigation. If the parties fail to resolve such disputes or claims, each party hereby consents to enter non-binding mediation to be held in the jurisdiction in which the Inspector keeps its primary place of business, the cost of which is to be shared equally by the parties. If a satisfactory result is not obtained in mediation, litigation may then be pursued. In the event of a claim against either party, the claimant agrees to supply the other party with written notification of nature of the claim within 14 days of discovery of the alleged basis for the claim.

Failure to comply with the above conditions will release the non-claiming party and its agents from any and all obligations or liability of any kind. Neither party shall have a cause of action against the other if more than one year passes from the date of the completion of Services hereunder, or termination of this Contract by its terms, before such claim is made. If litigation ensues under this Contract, the party that fails to prevail in such action shall be liable to pay the prevailing party's legal fees and costs, including attorney's fees, if any.

14. **NOTICE.** All notices, consents, approvals, requests and other communications ("Notices") required or permitted under this Contract must be given in writing and mailed by first-class mail to the last address given by one party to the other.

15. **APPLICABLE LAW AND VENUE.** The parties agree that any litigation arising out of this Contract shall be filed only in the Court having jurisdiction in the County in which the Inspector has its principal place of business. In the event that the Consultant fails to prove any adverse claims against the Inspector in a court of law, the Consultant agrees to pay all legal costs, expenses and fees of the Inspector in defending said claims. The Consultant further understands that any legal action against InterNACHI itself allegedly arising out of this Contract or the Inspector's relationship with InterNACHI must be brought only in the District Court of Boulder County, Colorado.

16. **ASSIGNMENT.** Neither party shall assign or otherwise transfer any of the rights or delegate any of the duties set forth in this Contract without the prior written consent of the other party, which shall not be unreasonably withheld.

17. **INSURANCE.** The Consultant shall carry those insurance policies for errors and omissions as customarily held in the Consultant's profession or field of expertise. The Inspector carries those certain insurance policies as described as follows:

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18. SUCCESSORS AND ASSIGNS. This Contract shall inure to the benefit of and be binding upon the legal representatives and successors of both parties, to the extent allowed by law.

19. PAYMENT OF TAXES. The Consultant shall pay all taxes and other such amounts required by federal, state and local law, including but not limited to federal and Social Security taxes, workers' compensation, unemployment insurance and sales taxes.

20. NON-EXCLUSIVITY. Nothing in this Contract shall be construed to prevent either party from performing the same or similar services contemplated herein for and on behalf of additional clients, whether or not said third parties are in direct competition with the either party's business operations.

21. AMENDMENT. All Services shall be completed during the term of the Contract. This Contract may only be amended or extended by written agreement of both parties. Any changes, change orders, modifications, revisions or other amendment to this Contract shall be mutually agreed upon by the parties and shall be incorporated by written instrument, executed and signed by all parties to this Contract.

22. ENTIRETY OF CONTRACT. This Contract represents the entire and integrated agreement between the parties and supersedes all prior negotiations, representations and agreements, whether written or oral.

23. SEVERABILITY. If any part of this Contract is found to conflict with applicable laws, such part shall be inoperative, null and void insofar as it conflicts with said laws, but the remainder of this Contract shall be in full force and effect.

24. TIME IS OF THE ESSENCE. Time is of the essence in all provisions of this Contract.

25. TITLES AND HEADINGS. Titles of paragraphs are for reference only, and shall not be used to construe the language in this Contract.

26. WAIVER. The waiver of any breach of any term or condition in this Contract shall not be deemed a waiver of any prior or subsequent breach.

27. EXECUTION. Execution of this Contract by signature of the party or its authorized representative certifies that each has read and understood the contents of this document, that each agrees to be bound by the terms of this Contract, that each has had opportunity to review it with a legal representative of their choosing, and that each has the authority to execute this Contract. If the party executing this Contract is a corporation, LLC, or similar entity, the person signing this Contract on behalf of such entity does personally guarantee payment of the fee by the entity.

IN WITNESS WHEREOF, the parties hereto have executed this Contract.

The INSPECTOR,

The CONSULTANT,

By: \_\_\_\_\_

By: \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

EXHIBIT A  
STATEMENT OF WORK

Under this Contract and as part of this Professional Services Contract, the Inspector and the Consultant agree that the following elements shall be included under this Statement of Work and shall constitute the Services to be performed hereunder:

**13. Thermal Imaging Addendum to Commercial Inspection Agreement**

This is an addendum to the Commercial Inspection Agreement regarding the inspection at:

\_\_\_\_\_.

Thermal imaging is a technology that allows the InterNACHI INSPECTOR to show you things about a building that no one can show you using other inspection methods. Thermal imaging produces images of invisible heat energy emitted from objects and systems in the building and allows us to measure it. Thermal imaging helps to diagnose the problem rather than merely identify symptoms and can sometimes, but not always, identify and document: electrical faults before they cause a fire, overloaded and undersized circuits, circuit breakers in need of immediate replacement, missing, damaged, and/or wet insulation, heat loss and air infiltration in walls, ceilings, floors, windows and doors, water and moisture intrusion that could lead to mold, possible pest infestation, hidden roof leaks before they cause serious damage, air-conditioner compressor leaks, under-fastening and/or missing framing members, structural defects, broken seals in double-pane windows, energy loss and efficiency, dangerous flue leaks, damaged and/or malfunctioning radiant heating systems, unknown plumbing leaks and/or overheated equipment. These color images can then be included in the inspection report, providing supporting documentation to the report. A picture is worth a thousand words.

1. CLIENT requests and authorizes INSPECTOR to perform a thermal imaging scan on the structure at \_\_\_\_\_ for the following purposes: \_\_\_\_\_.  
The fee for this additional service will be \$ \_\_\_\_\_, all of which is due prior to delivery of the thermal images.
2. INSPECTOR's liability arising for any damages allegedly arising out of any aspect of the thermal imaging service shall be limited to the additional amount paid for the thermal imaging scan. CLIENT voluntarily waives any claim for consequential, exemplary or incidental damages to the fullest extent allowed by law.
3. The thermal imaging scan will be limited in scope to the equipment used by INSPECTOR. The inspection will be a non-invasive and non-destructive examination of the visible, safely and readily accessible portions of the interior and/or exterior of the structure for atypical temperature/thermal variations. NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES REGARDING FUTURE USE, HABITABILITY, OPERABILITY, SUITABILITY, OR MERCHANTABILITY WITH RESPECT TO THE SUBJECT PROPERTY ARE PROVIDED.
4. Thermal imaging services do NOT include any inspections, examinations, testing or evaluations for harmful, dangerous, or toxic substances or materials or environmental hazards including but not limited to: mold, bio-aerosols, radon, lead, asbestos, non-biological airborne particulates, contaminants, petroleum products, petrochemicals, radioactive materials, electromagnetic radiation, or plant, animal, or insect secretions or excretions. Infrared cameras are not moisture meters but can aid in identifying areas that warrant further investigation. If INSPECTOR offers any information or opinions about any of the foregoing, this information shall be deemed to be informational only and supplied as a courtesy to the CLIENT and shall not be deemed to be an amendment to this addendum or the commercial inspection agreement.
5. CLIENT agrees to indemnify and hold harmless INSPECTOR, its agents, employees, and inspectors for the presence of any harmful, dangerous, or toxic substances or materials or environmental hazards including but not limited to those listed in part 4 of this addendum, as well as for any and all damages and liability for any mitigation, construction, or any other costs associated with the presence of any such hazards or substances or materials.
6. If CLIENT desires to obtain information regarding the presence of any harmful, dangerous, or toxic substances or materials or environmental hazards including but not limited to those listed in part 4 of this addendum, it is solely the responsibility of the CLIENT to contact and engage the services of qualified individuals or companies that specialize in the areas of specific interest or concern.
7. All of the other terms of the Commercial Inspection Agreement are incorporated herein by reference.

I have carefully read the foregoing and I understand, accept, and agree with all of the terms and conditions of this addendum.

\_\_\_\_\_  
CLIENT

\_\_\_\_\_  
(Date)

## 14. InterNACHI's Standard Accessibility Inspection Report for Existing Commercial Buildings

### 14.1 About this accessibility inspection report

Various laws around the world require public accommodations to provide goods and services to people with disabilities on an equal basis with the rest of the general public. Businesses benefit from the patronage of all people. Those who own, lease, lease out, or operate places of public accommodation should have as a goal the identification and reduction of physical barriers to this patronage. This inspection report will help identify possible accessibility deficiencies in existing facilities.

### 14.2 Who must comply

Most laws regarding accessibility only regulate new construction and remodeling and do not oblige existing building owners to reduce barriers if such reduction is not readily achievable. This report does not cover all of the possible local, state, provincial and federal requirements regarding accessibility or barrier reduction. The information presented within this report was derived from a visual-only inspection of the property and is intended solely as informal guidance, and is not a determination of legal rights or responsibilities.

### 14.3 Stand-alone inspection service option

This report may be offered in conjunction with a complete commercial property inspection or offered as a separate, stand-alone inspection service.

### 14.4 The Accessibility Inspection Report

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#### Accessibility Inspection Report

Key:

Y = Yes. The statement is true and accessibility appears to be adequate.

N = No. The statement is false and accessibility appears to be deficient.

U = Unknown. Inspector did not determine accessibility.

N/A = Not applicable.

Total number of parking spaces	Number of accessible parking spaces needed
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1,000	2% of total number of parking spaces
over 1,000	20 plus 1 for each 100 over 1,000

#### 1. Parking

1.1 \_\_\_ There are enough accessible parking spaces (8 feet wide plus 5-foot access aisle).

1.2 \_\_\_ The accessible parking spaces are marked with the International Symbol of Accessibility.

1.3 \_\_\_ The accessible parking spaces are the closest spaces to the accessible entrance of the building.

1.4 \_\_\_ The accessible parking spaces have access aisles that are part of the accessible route to the accessible entrance of the building.

## 2. Route of Travel

- 2.1 \_\_\_ There is a route of travel from the accessible parking spaces to the accessible entrance that does not require the use of stairs.
- 2.2 \_\_\_ The route of travel is at least 36 inches wide.
- 2.3 \_\_\_ The slopes on the route of travel are not greater than 5 percent (1-inch rise/20-inch run).
- 2.4 \_\_\_ The route of travel is stable, firm and slip-resistant.
- 2.5 \_\_\_ The curbs on the route of travel include ramped curb cuts with a width of at least 36 inches.

## 3. Ramps

- 3.1 \_\_\_ Ramps longer than 6 feet have railings on both sides.
- 3.2 \_\_\_ Railings are sturdy and between 34 and 38 inches high.
- 3.3 \_\_\_ Ramps are stable, firm and slip-resistant.
- 3.4 \_\_\_ There is a 5-foot long level landing at the top and bottom of every 30-foot horizontal length of ramp and at every ramp switchback.

## 4. Entrance

- 4.1 \_\_\_ The main entrance is accessible, or there is a ramp or a lift or an alternative accessible entrance.
- 4.2 \_\_\_ All inaccessible entrances have signs giving directions to the nearest accessible entrance.
- 4.3 \_\_\_ The accessible entrance door has at least 32 inches of clear opening.
- 4.4 \_\_\_ The accessible entrance door has at least 24 inches of clear wall space on the pull-side of the door, next to the handle.
- 4.5 \_\_\_ The accessible entrance door handle is no higher than 48 inches.
- 4.6 \_\_\_ The accessible entrance door handle is operable with a closed fist (accessible to a person with limited use of his/her hands).
- 4.7 \_\_\_ The accessible entrance door can be opened without too much force (less than 8.5 lbs. of force).
- 4.8 \_\_\_ The accessible entrance threshold is not a trip hazard or wheelchair barrier (less than ¼-inch high or less than ¾-inches high with bevels on both sides).
- 4.9 \_\_\_ The automatic door closer (if one exists) on the accessible entrance takes at least 3 seconds to close the door.

## 5. Interior

- 5.1 \_\_\_ The interior carpeting is low-pile and tightly woven.
- 5.2 \_\_\_ There are no noted hindrances to a person who uses a cane.
- 5.3 \_\_\_ The corridors are at least 36 inches wide.
- 5.4 \_\_\_ The corridors have wheelchair passing spaces at reasonable intervals (less than 200 feet) or intersecting corridors that can be used as passing spaces.

## 6. Restrooms

- 6.1 \_\_\_ Public restrooms include at least one fully accessible restroom on an accessible route of travel.
- 6.2 \_\_\_ The inaccessible restrooms have signs that give directions to an accessible one.
- 6.3 \_\_\_ Pictograms or symbols are used to identify restrooms.
- 6.4 \_\_\_ Accessible restroom door handles are no higher than 48 inches.
- 6.5 \_\_\_ Accessible restroom door handles are operable with a closed fist (accessible to a person with limited use of his/her hands).
- 6.6 \_\_\_ Accessible restroom doors can be opened without too much force (less than 5 lbs. of force).
- 6.7 \_\_\_ The accessible restroom entry configuration provides adequate maneuvering and turnaround space (60 inches in diameter) for wheelchairs.
- 6.8 \_\_\_ The path to all fixtures in the accessible restroom is at least 36 inches wide.
- 6.9 \_\_\_ The accessible restroom stall door is operable with a closed fist (accessible to a person with limited use of his/her hands) inside and out.
- 6.10 \_\_\_ The accessible restroom has at least one wheelchair-accessible stall that provides adequate maneuvering space for a wheelchair.
- 6.11 \_\_\_ The wheelchair-accessible stall has grab bars behind and on the side wall nearest the toilet.
- 6.12 \_\_\_ The wheelchair-accessible stall has a toilet seat that is 17 to 19 inches high.
- 6.13 \_\_\_ The wheelchair-accessible stall has a toilet seat that does not spring back to a lifted position.
- 6.14 \_\_\_ The accessible restroom has at least one urinal with a rim no higher than 17 inches above the floor.
- 6.15 \_\_\_ The accessible restroom has at least one lavatory with a 30-inch wide by 48-inch deep clear space in front of it.
- 6.16 \_\_\_ The accessible restroom lavatory has a rim no higher than 34 inches.
- 6.17 \_\_\_ The accessible restroom lavatory has at least 29 inches of knee space between the floor and the bottom of the lavatory apron.
- 6.18 \_\_\_ The accessible restroom lavatory has no hot pipes or sharp surfaces underneath that could harm a person in a wheelchair.
- 6.19 \_\_\_ The accessible restroom lavatory faucet can be operated with one closed fist (accessible to a person with limited use of his/her hands).
- 6.20 \_\_\_ The accessible restroom lavatory faucet (if self-closing) permits the water to flow for at least 10 seconds.
- 6.21 \_\_\_ The accessible restroom soap dispensers and hand dryers are within reach of a person in a wheelchair and are operable with one closed fist.
- 6.22 \_\_\_ The accessible restroom mirror (if provided) is mounted with the bottom edge of the reflecting surface no higher than 40 inches.

7. Elevators

7.1 \_\_\_ The passenger elevators are located on an accessible path of travel.

7.2 \_\_\_ The passenger elevator doors have a clear opening of not less than 36 inches.

7.3 \_\_\_ The passenger elevators have wheelchair turning spaces that are at least 68 inches wide by 51 inches deep.

7.4 \_\_\_ The passenger elevators have controls that are not higher than 54 inches for side approach, and not higher than 48 inches for front approach.

7.5 \_\_\_ The passenger elevators have controls that are labeled in raised Braille.

7.6 \_\_\_ The passenger elevators serve all public levels of the building.

8. Other

8.1 \_\_\_ Notes regarding additional observed barriers are attached.

8.2 \_\_\_ Exhibits are attached.

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## 15. InterNACHI's Observed Green Features Report for Existing Commercial Buildings

### 15.1 Definition of Green

“Green” describes features, technologies and products that increase efficiency in a building’s energy and water usage, help protect the health of its occupants, and reduce the commercial property’s impact on the environment. Green buildings are healthier, more environmentally friendly, and economically smarter than average buildings.

Green features:

- improve energy efficiency;
- reduce pollution;
- provide healthier air;
- increase comfort;
- reduce water usage;
- preserve natural resources;
- increase durability;
- make a building quieter;
- reduce maintenance;
- lower monthly costs;
- improve resale value.

### 15.2 Codes and standards

Nearly all green building codes and standards have been developed by private organizations and pertain to new construction, not existing commercial properties. Nevertheless, existing properties, by design, by luck, or through modification, have green features that clients should know about.

### 15.3 Purpose

This standard does not require the inspector to determine the “green-ness” of a building. The purpose of the green features report is to permit the inspector to easily point out common green features of the property, thus increasing client awareness of the property's green features. The inspector is not required to perform an energy audit, determine code compliance, perform environmental assessments, test for radon, lead, asbestos or mold, or report on all green features or the lack of them (see 8.0).

### 15.4 Optional add-on inspection service

This standard does not require the inspector to perform this green features inspection. The observed green features report may be offered in conjunction with a complete commercial property inspection or as a separate, stand-alone inspection service.

### 15.5 Green checklist

The following checklist is designed to help identify commonly found green features noticed by the inspector.

Key:

Y = Yes. This feature was observed and may exist.

N = No. This feature was not observed and so might not exist.

U = Unknown. Inspector did not note.

N/A = Not applicable.

\* = May be implemented in existing properties. \_\_\_\_\_

## Observed Green Features Report

- The property appears to be in close proximity to public or alternative transportation.
- The building's structure appears to permit expansion by building up versus out.
- The building, if in a cold climate, is oriented so that the side with the most glass faces south (within 30 degrees).
- Deciduous trees are providing sun in the winter and shade in the summer.\*
- Drives and walkways are mostly of permeable material, such as gravel.\*
- The downspouts and gutters are clean and in working order.\*
- The property appears to have systems that control erosion and manage storm water.\*
- The property appears to have a landscape design which limits water usage.\*
- The property appears to reduce heat-island effects through light-colored, shaded, and/or reduced paved areas.\*
- The building appears to utilize materials which are easily returned to the earth, can be recycled, or are renewable.
- The building appears to have some low VOC (volatile organic compound)-emitting materials.\*
- Most of the carpeting is light-colored.\*
- The building appears to be well insulated.\*
- The building envelope appears to be well sealed from potential air infiltration.\*
- The exterior doors appear to have intact weather-stripping and close tightly.\*
- The building's windows appear to be mostly high-performance or double-glazed.\*
- The flashing above windows and exterior doors appears to be correctly installed.\*
- The building has waterless urinals.\*
- The building has low-consumption toilets, faucets and shower heads.\*
- A geothermal heating or cooling system exists.\*
- A solar system exists.\*
- Wind or hydro-electric generators exist.\*
- High-efficiency furnaces, boilers and/or water heaters exist.\*
- Energy recovery ventilators or air-to-air heat exchangers exist.\*
- Ductwork is sealed.\*
- Filters are clean.\*
- High-performance HVAC air filters exist.\*
- High-efficiency cooling equipment exists.\*
- Ceiling fans exist.\*

- Individual thermal comfort controls exist.\*
- Thermostats have “fan only” option.\*
- Daylight views for building occupants exist.
- Energy-efficient lighting fixtures exist.\*
- Some light fixtures have dimmers.\*
- Some interior lighting motion sensors exist.\*
- Some exterior lighting is controlled by motion sensors.\*
- Some of the outdoor/walkway lighting is solar-powered.\*
- A radon system exists.\*
- No visible indications of lead paint noted.
- No visible indications of asbestos noted.
- No visible indications of mold noted.

Notes regarding additional observed green features are attached.

\* May be implemented in existing properties.

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## 16. International Standards of Practice for Inspecting Commercial Fire Doors

### 16.1 About these standards for inspecting commercial fire doors

Many buildings, including schools, high-rises, health care facilities, churches, office buildings, factories, and warehouses are likely to have fire doors. Should a fire occur, the health, safety, and welfare of building occupants and emergency responders depend on the regular inspection of fire doors.

### 16.2 Purpose

The purpose of this document is to establish international standards for the inspection of commercial fire doors. This document also provides a universal, commercial fire door inspection reporting form.

### 16.3 Definitions

#### 16.3.1 Fire door-specific definitions

- Active Leaf: The door of a pair of swinging doors that is normally used.
- Automatic-Closing Device: A device that causes the door to close when activated by a fusible link or heat-actuated device.
- Barrel: A cylindrical part of a rolling steel fire door that contains the counterbalance springs.
- Bottom Bar: The lower edge of the door assembly.
- Coordinator: A device used on pairs of swinging doors that causes the inactive leaf to close before the active leaf.
- Flame Baffle: A hinged piece of sheet metal that closes the space between the top of a rolling steel fire door and its hood.
- Fusible Link: A device consisting of pieces of metal held together by solder that melts during a fire.
- Hood: A sheet-metal housing that contains the rolled door.
- Inactive Leaf: The door of a pair of swinging doors that is normally latched.
- Noncombustible: Not capable of igniting when subjected to fire.
- Sill: The bottom part of a doorway opening. Threshold.

#### 16.3.2 Terminology commonly found in commercial property inspection reports

Visit <http://www.nachi.org/comsop.htm#2>

### 16.4 Goal of the inspection

The goal of a commercial fire door inspection is to provide an indication as to whether or not the door is in a state of readiness to perform its intended function during a fire.

### 16.5 Limitations

It is not the purpose of this standard to establish inspection procedures to determine the fire rating or the degree of protection provided by a fire door or surrounding wall, determine the need for a fire door in any particular location, determine proper placement of detectors, determine the functionality of fire detection systems, heat-test fusible links, determine the combustibility of floor coverings extending through doorways, inspect accordion, folding, hoistway, elevator, chute, access or dumbwaiter doors, inspect fire windows, or inspect fabric fire-safety curtains.

### 16.6 Optional add-on inspection service

InterNACHI's Standards of Practice for Inspecting Commercial Properties does not require the inspector to perform fire door inspections. The fire door inspection may be offered in conjunction with a complete commercial property inspection or as a separate, stand-alone inspection service.

### 16.7 Inspection Frequency

Fire doors should be inspected after any incidents that may have damaged the door or its components or upon noticing possible damage, but not less than annually.

## 16.8 Visual Inspection

16.8.1 The inspector should visually inspect from both sides of the door assembly.

16.8.2 The inspector should inspect the door opening and surrounding area for potential obstructions or items or conditions that might interfere with the free operation of the door.

16.8.3 The inspector should inspect for auxiliary items that could interfere with door operation.

16.8.4 The inspector should inspect for missing or insecure mounting and assembly bolts.

16.8.5 The inspector should inspect for evidence of field modifications that may void the door's fire rating.

16.8.6 The inspector should inspect for open holes or breaks that exist in either the door or frame.

16.8.7 The inspector should inspect for failed glazing and glazing beads that are not intact or securely fastened.

16.8.8 The inspector should inspect for missing or broken parts.

16.8.9 The inspector should inspect for combustible sills. Sill should be noncombustible.

16.8.10 The inspector should inspect for clearances (of swinging doors) between the top and vertical edges of the door and the frame, and the meeting edges of doors swinging in pairs, measured from the pull-side of the door, that exceed 1/8 inch (3.18 mm)  $\pm$  1/16 inch (1.59 mm) for steel doors, and  $\pm$  1/8 inch (3.18 mm) for wood doors.

16.8.11 The inspector should inspect for clearances (of swinging doors) under the bottom of the door that exceed 3/4 inch (19 mm) and 3/8 inch (9.5 mm) for doors that have sills more than 38 inches (965 mm) above the finished floor (such as repair counters).

16.8.12 The inspector should inspect the opening (of sliding doors) at the sides and top for overlaps that are less than 4 inches (102 mm).

16.8.13 The inspector should inspect and note whether or not combustible floor coverings extend through the door opening. Although depending on the rating of the door, some combustible floor coverings are permitted to extend through door openings, determining compliance lies beyond the scope of a commercial fire door inspection. Combustible flooring should never extend through doorways protected by 3-hour (or greater) rated fire doors.

## 16.9 Operational Check

16.9.1 Before checking, the inspector should identify anything that might create a hazard during the operational check. If, in the opinion of the inspector, a hazard might be created by operating the door, the inspector shall not perform the operational check portion of the inspection.

16.9.2 The inspector should open and close the door using normal operation. Doors should open and close easily.

16.9.3 The inspector should inspect the condition of any gaskets or edge seals.

16.9.5 The inspector should inspect the guides and bearings for lack of lubrication.

16.9.6 The inspector should inspect for blocking or wedging of doors in the open position or blocked or wedged release arms and weights (of sliding and rolling doors).

16.9.7 The inspector should inspect for kinked, pinched, twisted, or excessively worn chains or cables (of sliding and rolling doors).

16.9.8 The inspector should inspect the condition of any fusible links and heat-actuated devices (if equipped). Links should not be painted or coated with dust or grease.

16.9.9 The inspector should inspect signs installed on the surface of the fire door for interference with the proper operation of the door.

16.9.10 The inspector should inspect for signage that exceeds 5 percent of the total area of the face of the fire door to which they are attached.

16.9.11 The inspector should inspect for signs that are attached by mechanical means such as screws or nails. Signs should be attached to fire doors by use of adhesive only.

16.9.12 The inspector should inspect for rating and inspection labels and tags that have been painted over. Labels and tags should not be painted over.

#### 16.10 Simulation (drop) Test

16.10.1 Before testing, the inspector should identify anything that might create a hazard during testing. If, in the opinion of the inspector, a hazard might be created by testing, the inspector shall not perform the testing portion of the inspection.

16.10.2 The inspector should perform all testing and resetting of the release mechanism in accordance with the manufacturer's instructions. If instructions are not made available at the time of the inspection, the inspector should continue only if the inspector has knowledge and understanding of the operating components of that type of door.

16.10.3 The inspector should inspect for missing closing devices (self or automatic). Every fire door should have a closing device.

16.10.4 The inspector should test any self-closing devices (of swinging doors) to assure that they close and latch the door completely when operated from the full-open position.

16.10.5 The inspector should inspect closing mechanisms (of swinging doors) for hold-open features. Closing mechanisms should not have hold-open features unless they are on doors that are designed to automatically close during an alarm condition.

16.10.6 The inspector should test any coordinators (of dual-leaf doors) for failure to close the inactive leaf before the active leaf. A coordinator is not needed where each door leaf closes and latches independently of the other.

16.10.7 The inspector should inspect for latching hardware that fails to operate or fails to secure the door when it is in the closed position.

16.10.8 The inspector should inspect for normal operation and full closure (of sliding and rolling doors) with an initial simulation (drop) test.

16.10.9 The inspector should inspect the closing for speeds slower than 6 inches per second (152 mm/sec) or faster than 24 inches per second (610 mm/sec).

16.10.10 The inspector should perform a second simulation (drop) test (of sliding and rolling doors) to verify that the automatic-closing device has been reset.

#### 16.11 Sample Reporting Language

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#### Commercial Fire Door Inspection Report

Client \_\_\_\_\_

Location of garage door \_\_\_\_\_

This inspection was performed in substantial compliance with InterNACHI's Standards of Practice for Inspecting Commercial Fire Doors. It is designed to provide an indication as to whether or not the door is in a state of readiness to perform its intended function during a fire. Fire doors should be inspected after any incidents that may have damaged the door or upon noticing possible damage, but not less than annually. A signed copy of this report should be maintained and made available to the authority having jurisdiction, insurance representatives, employees, and other interested parties.

- The inspector was not able to visually inspect from both sides of the door assembly.
- The inspector noted obstructions in the surrounding area that could interfere with the operation of the door.
- The inspector noted missing or insecure mounting and assembly bolts.
- The inspector noted auxiliary items that interfere with door operation.
- The inspector noted open holes or breaks that exist in either the door or frame.
- The inspector noted evidence of field modifications that may void the door's fire rating.
- The inspector noted failed glazing or glazing beads that are not intact or securely fastened.
- The inspector noted missing or broken parts.
- The inspector noted combustible sills.
- The inspector noted clearances (of swinging doors) between the top or vertical edges of the door and the frame, or the meeting edges of doors swinging in pairs, measured from the pull-side of the door, that exceed 1/8 inch (3.18 mm) ± 1/16 inch (1.59 mm) for steel doors, and ± 1/8 inch (3.18 mm) for wood doors.
- The inspector noted clearances (of swinging doors) under the bottom of the door that exceed 3/4 inch (19 mm) and 3/8 inch (9.5 mm) for doors that have sills more than 38 inches (965 mm) above the finished floor (such as repair counters).
- The inspector noted overlaps at the sides or top (of horizontally sliding doors) that are less than 4 inches (102 mm).
- The inspector noted combustible floor coverings extending through the door opening. Although depending on the fire rating of the door, some combustible floor coverings are permitted to extend through door openings, determining compliance lies beyond the scope of this inspection. Combustible flooring should never extend through doorways protected by 3-hour (or greater) rated fire doors.
- The inspector identified a condition that might create a hazard during the operational check and so did not perform the operational check portion of the inspection.
- The inspector noted that the door does not open and close easily using normal operating procedures. Doors should open and close easily.
- The inspector noted that the gaskets or edge seals were in poor condition.
- The inspector noted that the guides and bearings lacked lubrication.
- The inspector noted blocking or wedging of doors in the open position, or blocked or wedged release arms or weights (of sliding or rolling doors).
- The inspector noted kinked, pinched, twisted, or excessively worn chains or cables (of sliding or rolling doors).
- The inspector noted that the fusible links or heat-actuated devices (if equipped) were painted or coated with dust or grease.
- The inspector noted that the signs installed on the surface of the fire door might interfere with the proper operation of the door.
- The inspector noted signage that exceeded 5 percent of the total area of the face of the fire door to which they were attached.
- The inspector noted signs that were attached by mechanical means such as screws or nails. Signs should be attached to fire doors by use of adhesive only.
- The inspector noted rating or inspection labels or tags that have been painted over. Labels and tags should not be painted over.
- The inspector identified a condition that might create a hazard during testing and so did not perform the simulated (drop) testing portion of the inspection.
- The inspector noted that the manufacturer's testing and resetting instructions were not made available at the time of the inspection.
- The inspector noted missing closing devices (self or automatic). Every fire door should have a closing device.
- The inspector noted that the self-closing devices (of swinging doors) do not close and latch the door completely when operated from the full open position.
- The inspector noted that the closing mechanisms (of swinging doors) include hold-open features. Closing mechanisms should not have hold-open features unless they are on doors that are designed to automatically close during an alarm condition.
- The inspector noted coordinators (of dual leaf doors) failed to close the inactive leaf before the active leaf. A coordinator is not needed where each door leaf closes and latches independently of the other.
- The inspector noted latching hardware that failed to operate or failed to secure the door when it is in the closed position.
- The inspector noted abnormal operation or partial closure (of sliding and rolling doors) with the initial drop test.
- The inspector noted that the closing speed was slower than 6 inches per second (152 mm/sec) or faster than 24 inches per second (610 mm/sec).
- The inspector noted that the second drop test (of sliding and rolling doors) failed to reset the automatic-closing device.

This inspection was performed by \_\_\_\_\_

## 17. International Phase I Standards of Practice for Inspecting Fireplaces and Chimneys

### 17.1 About these standards for inspecting fireplaces and chimneys

Although this standard applies to both commercial and residential fireplaces and chimneys, this standard exceeds the requirements of both InterNACHI's commercial and residential standards of practices. The inspection shall include examination of readily accessible and visible portions of solid-fuel-burning, low-heat fireplaces and chimneys.

### 17.2 Purpose

The purpose of this document is to establish international standards for the inspection of fireplaces and chimneys. This document also provides universal fireplace and chimney inspection reporting language.

### 17.3 Definitions

#### 17.3.1 Fireplace and chimney-specific definitions

- Accessible: Can be approached or entered by the inspector safely, without difficulty, fear or danger.
- Chimney: A structure containing one or more flues for removing gases to outside atmosphere.
- Cleanout: An opening in a chimney that provides access to the flue for cleaning purposes.
- Clearance: The minimum distance through air measured between the surface of something heat-producing and the surface of something combustible.
- Connector: The pipe that connects a fuel-burning appliance to a chimney.
- Crown: The sloped top of a masonry chimney designed to shed water away from the flue; also called a splay or a wash.
- Damper: Typically, a manually-operated plate for controlling draft in a flue.
- Fireplace Lintel: A horizontal, noncombustible member that spans the top of the fireplace opening.
- Flue: A passage through which gasses move from the fire chamber to the outer air.
- Hearth: The floor within a fireplace.
- Hearth Extension: Noncombustible material in front of and at the sides of a fireplace opening.
- Mantel: A shelf or horizontal ornament above a fireplace opening.
- Phase I: A type of fireplace and chimney inspection that exceeds the standards required by a traditional home inspection.
- Single-Wall, Metal Chimney: Typically, a field-constructed chimney not permitted in one- and two-family dwellings.
- Solid-Fuel: Wood, coal, pellets, and other materials that can be burned for heat.
- Thimble: The tube or lining through a wall that a connector passes through to enter a flue or that a flue passes through to exit a roof.
- Wall Protector: Noncombustible shield between a wall and anything heat-producing for the purpose of reducing required clearance.

#### 17.3.2 Terminology commonly found in commercial property inspection reports.

Visit <http://www.nachi.org/comsop.htm#101>

### 17.4 Goal of the inspection

The goal of the inspection is to provide observations which may lead to the decrease of hazardous conditions associated with fireplaces and chimneys.

### 17.5 Limitations

The inspection is limited to readily-accessible and visible portions of the fireplace and chimney. The inspection should not be considered all-inclusive or technically exhaustive.

This standard does NOT require the inspector to:

- inspect appliances, wall furnaces, stoves, water heaters, incinerators, mechanical draft systems, draft regulators, catalytic converters, pollution control devices, heat reclamation devices, spark arrestors, induced draft chimneys, fire-stopping, or for condensation issues.
- determine fire-rating, adequacy of combustion air, status of product listing, compliance with manufacturer's instructions, proper clearances, proper load paths, combustibility, proper placement of flue size changes, proper thimble installation, or repair history.
- remove or inspect fireplace inserts, stoves or accessories.
- determine the need for fire-stopping, chimney enclosures, hearth thickness, or seismic reinforcing.
- test smoke detectors or carbon monoxide detectors.
- perform video scans, smoke tests, flue gas measurements, or engineering calculations.

These standards do not apply to the inspection of mobile homes.

#### 17.6 Optional add-on inspection service

Although InterNACHI's Standards of Practice for Inspecting Commercial Properties and InterNACHI's Residential Standards of Practice do not require the inspector to perform Phase I fireplace and chimney inspections, Phase I fireplace and chimney inspections may be offered in conjunction with a complete commercial or residential property inspection or as separate, stand-alone inspection services.

#### 17.7 Inspection Frequency

The inspector should advise his/her client that all fireplaces and chimneys should be inspected prior to client's first use and not less than annually.

#### 17.8 Visual Inspection

##### 17.8.1 Initial Inspection

17.8.1.1 The inspector should inspect for solid fuel-burning appliances or fireplaces improperly located where gasoline or other flammable vapors or gases are present.

17.8.1.2 The inspector should inspect for unused openings in chimneys and flues.

17.8.1.3 The inspector should inspect for lack of a smoke detector. A smoke detector should be installed in the same room as the fireplace.

17.8.1.4 The inspector should inspect for lack of a carbon monoxide detector. A carbon monoxide should be installed in the same room as the fireplace.

##### 17.8.2 Fireplaces:

17.8.2.1 The inspector should inspect for combustible lintels above fireplace openings.

17.8.2.2 The inspector should inspect for combustible material within 6 inches above fireplace openings, that projects out 1.5 inches or less from the face of the fireplace.

17.8.2.3 The inspector should inspect for combustible material within 12 inches above fireplace openings, that projects out more than 1.5 inches from the face of the fireplace.

17.8.2.4 The inspector should inspect for throats or dampers located less than 8 inches above fireplace openings.

17.8.2.5 The inspector should inspect for manually-operated dampers that do not operate or close properly.

17.8.2.6 The inspector should inspect for dampers and damper components that have rust or corrosion.

### 17.8.3 Hearths, hearth extensions and fire chambers:

17.8.3.1 The inspector should inspect for hearth extensions that have a thickness of less than 2 inches.

17.8.3.2 The inspector should inspect for hearth extensions that are less than 16 inches in front or less than 8 inches beyond each side of fireplace openings (6 square feet or less).

17.8.3.3 The inspector should inspect for hearth extensions that are less than 20 inches in front or less than 12 inches beyond each side of fireplace openings (greater than 6 square feet).

17.8.3.4 The inspector should inspect the hearth, hearth extension, and chambers for joint separation, damage and deterioration.

### 17.8.4 Single-wall, metal chimneys:

#### 17.8.4.1 Initial single-wall, metal chimney inspection

17.8.4.1.1 The inspector should inspect for single-wall, metal chimneys in one- and two-family dwellings. Single-wall, metal chimneys should not be used in one- and two-family dwellings.

17.8.4.1.2 The inspector should inspect for wall protectors (heat shields) with less than 1-inch air gaps.

#### 17.8.4.2 Interior single-wall, metal chimneys:

17.8.4.2.1 The inspector should inspect for exposed, interior, single-wall, metal chimneys that are not continuously enclosed where they extend through closets, storage areas, or habitable spaces or where the surface of a chimney could come into contact with combustible materials or people.

17.8.4.2.2 The inspector should inspect for interior, single-wall, metal chimneys for distances less than 18 inches from wood frame walls or combustible materials.

17.8.4.2.3 The inspector should inspect for interior, single-wall, metal chimneys (18 inches or under in diameter) that are less than 2 inches from noncombustible walls.

17.8.4.2.4 The inspector should inspect for interior, single-wall, metal chimneys (over 18 inches in diameter) that are less than 4 inches from noncombustible walls.

#### 17.8.4.3 Exterior single-wall, metal chimneys:

17.8.4.3.1 The inspector should inspect for distances between exterior mounted, single-wall, metal chimneys that are less than 2 feet from doors, windows or walkways.

17.8.4.3.2 The inspector should inspect for distances between exterior mounted, single-wall, metal chimneys that are less than 18 inches from wood frame walls or combustible materials.

17.8.4.3.3 The inspector should inspect for distances between exterior mounted, single-wall, metal chimneys (18 inches or under in diameter) that are less than 2 inches from noncombustible walls.

17.8.4.3.4 The inspector should inspect for distances between exterior mounted, single-wall, metal chimneys (over 18 inches in diameter) that are less than 4 inches from noncombustible walls.

### 17.8.5 Chimney outlets:

17.8.5.1 The inspector should inspect for missing ventilating thimbles where chimneys pass through combustible roofs.

17.8.5.2 The inspector should inspect for chimneys that terminate less than 3 feet above the highest point where they pass through the roof surface.

17.8.5.3 The inspector should inspect for chimneys that terminate less than 2 feet above any portion of a building (ridge, wall, or parapet) within 10 feet.

17.8.5.4 The inspector should inspect for chimneys that terminate less than 3 feet from adjacent buildings or building openings.

17.8.5.5 The inspector should inspect for chimneys that terminate less than 10 feet above grade or walkways.

17.8.5.6 The inspector should inspect for chimney outlets that jeopardize people, overheat combustible structures, or that might cause flue gases to enter nearby building openings.

17.8.5.7 The inspector should inspect the crowns of masonry chimneys for slopes that direct water into flues.

#### 17.8.6 Flues and liners:

17.8.6.1 The inspector should inspect for galvanized flues and connectors. Flues and connectors should not be galvanized.

17.8.6.2 The inspector should inspect readily accessible and visible flues for rust and corrosion.

17.8.6.3 The inspector should inspect for masonry chimneys that are not lined. All masonry chimneys should be lined.

17.8.6.4 The inspector should inspect for linings that don't extend the entire length of the chimney to a level of 2 inches or more above the crown, splay or wash.

17.8.6.5 The inspector should inspect for liners that are visibly softened, cracked, deteriorated or damaged.

17.8.6.6 The inspector should inspect readily accessible and visible flues and liners for excessive accumulation of creosote, soot, and other combustible material.

17.8.6.7 The inspector should inspect for flues that have two or more openings at the same level.

17.8.6.8 The inspector should inspect for venting into the space around and between liners. The remaining space surrounding a chimney liner should not be used as a vent.

## 17.8.7 Flue size:

The inspector should inspect the size of the flue, if visible, and compare it to the size of the fireplace opening. This relationship is the most important factor in achieving sufficient draft. A flue that is too small relative to the fireplace opening will be unable to lift and remove hazardous flue gases to the outside.

Round flues	Maximum fireplace opening
4 inches in diameter	150 square inches
5 inches in diameter	235 square inches
6 inches in diameter	339 square inches
7 inches in diameter	461 square inches
8 inches in diameter	603 square inches
9 inches in diameter	763 square inches
10 inches in diameter	942 square inches
11 inches in diameter	1,140 square inches
12 inches in diameter	1,357 square inches
13 inches in diameter	1,592 square inches
14 inches in diameter	1,847 square inches
15 inches in diameter	2,120 square inches
16 inches in diameter	2,412 square inches
17 inches in diameter	2,723 square inches
18 inches in diameter	3,053 square inches
19 inches in diameter	3,402 square inches
20 inches in diameter	3,769 square inches
21 inches in diameter	4,156 square inches
22 inches in diameter	4,561 square inches
23 inches in diameter	4,985 square inches
24 inches in diameter	5,428 square inches
25 inches in diameter	5,890 square inches
26 inches in diameter	6,371 square inches
27 inches in diameter	6,870 square inches
28 inches in diameter	7,389 square inches
29 inches in diameter	7,926 square inches
30 inches in diameter	8,482 square inches

Table 17.8.7.2 Maximum flue size in square inches for rectangular flues.\*

Table 17.8.7.2 Maximum flue size in square inches for rectangular flues.\*

	6"	7"	8"	9"	10"	11"	12"	13"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"	24"	25"	26"	27"	28"
4"	240	280	256	288	320	352	384	416	448	480	512	544	576	608	640	672	704	736	768	800	832	864	896
5"	300	350	400	450	400	440	480	520	560	600	640	680	720	760	800	840	880	920	960	1000	1040	1080	1120
6"	360	420	480	540	600	660	720	780	840	900	960	1020	1080	1140	1200	1260	1320	1380	1440	1500	1560	1620	1680
7"	420	490	560	630	700	770	840	910	980	1050	1120	1190	1260	1330	1400	1470	1540	1610	1680	1750	1820	1890	1960
8"	480	560	640	720	800	880	960	1040	1120	1200	1280	1360	1440	1520	1600	1680	1760	1840	1920	2000	2080	2160	2240
9"	540	630	720	810	900	990	1080	1170	1260	1350	1440	1530	1620	1710	1800	1890	1980	2070	2160	2250	2340	2430	2520
10"	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800
11"	660	770	880	990	1100	1210	1320	1430	1540	1650	1760	1870	1980	2090	2200	2310	2420	2530	2640	2750	2860	2970	3080
12"	720	840	960	1080	1200	1320	1440	1560	1680	1800	1920	2040	2160	2280	2400	2520	2640	2760	2880	3000	3120	3240	3360
13"	780	910	1040	1170	1300	1430	1560	1690	1820	1950	2080	2210	2340	2470	2600	2730	2860	2990	3120	3250	3380	3510	3640
14"	840	980	1120	1260	1400	1540	1680	1820	1960	2100	2240	2380	2520	2660	2800	2940	3080	3220	3360	3500	3640	3780	3920
15"	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900	4050	4200
16"	960	1120	1280	1440	1600	1760	1920	2080	2240	2400	2560	2720	2880	3040	3200	3360	3520	3680	3840	4000	4160	4320	4480
17"	1020	1190	1360	1530	1700	1870	2040	2210	2380	2550	2720	2890	3060	3230	3400	3570	3740	3910	4080	4250	4420	4590	4760
18"	1080	1260	1440	1620	1800	1980	2160	2340	2520	2700	2880	3060	3240	3420	3600	3780	3960	4140	4320	4500	4680	4860	5040
19"	1140	1330	1520	1710	1900	2090	2280	2470	2660	2850	3040	3230	3420	3610	3800	3990	4180	4370	4560	4750	4940	5130	5320
20"	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000	4200	4400	4600	4800	5000	5200	5400	5600
21"	1260	1470	1680	1890	2100	2310	2520	2730	2940	3150	3360	3570	3780	3990	4200	4410	4620	4830	5040	5250	5460	5670	5880
22"	1320	1540	1760	1980	2200	2420	2640	2860	3080	3300	3520	3740	3960	4180	4400	4620	4840	5060	5280	5500	5720	5940	6160
23"	1380	1610	1840	2070	2300	2530	2760	2990	3220	3450	3680	3910	4140	4370	4600	4830	5060	5290	5520	5750	5980	6210	6440
24"	1440	1680	1920	2160	2400	2640	2880	3120	3360	3600	3840	4080	4320	4560	4800	5040	5280	5520	5760	6000	6240	6480	6720
25"	1500	1750	2000	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500	5750	6000	6250	6500	6750	7000
26"	1560	1820	2080	2340	2600	2860	3120	3380	3640	3900	4160	4420	4680	4940	5200	5460	5720	5980	6240	6500	6760	7020	7280
27"	1620	1890	2160	2430	2700	2970	3240	3510	3780	4050	4320	4590	4860	5130	5400	5670	5940	6210	6480	6750	7020	7290	7560
28"	1680	2000	2320	2640	2960	3280	3600	3920	4240	4560	4880	5200	5520	5840	6160	6480	6800	7120	7440	7760	8080	8400	8720
29"	1740	2100	2460	2820	3180	3540	3900	4260	4620	4980	5340	5700	6060	6420	6780	7140	7500	7860	8220	8580	8940	9300	9660

\*Find the maximum size of the fireplace opening by matching the flue dimensions to the left column and top row of chart.

#### 17.8.8 Connectors (solid wood burning appliance to chimney):

17.8.8.1 The inspector should inspect for connectors from solid-fuel burning appliances that have a rise to the chimney of less than ¼ inch per foot.

17.8.8.2 The inspector should inspect for connectors that are not as short or straight as practicable.

17.8.8.3 The inspector should inspect for connectors that are covered with insulation.

17.8.8.4 The inspector should inspect for connectors of natural draft appliances connected to the positive pressure side of a mechanical draft systems.

17.8.8.5 The inspector should inspect for larger connectors entering a flue above smaller connectors.

## 17.8.9 Cleanouts:

17.8.9.1 The inspector should inspect cleanouts for doors and frames that are not made of metal, precast cement or other noncombustible material.

17.8.9.2 The inspector should inspect combustible materials projected beyond the faces of chimneys that are within 18 inches of cleanout openings.

17.8.9.3 The inspector should inspect for combustible materials stored within 18 inches of cleanout doors.

17.8.9.4 The inspector should inspect cleanout doors that are obstructed or do not close tightly.

17.8.9.5 The inspector should inspect the interior cleanout's lower edge for heights above the lowest accessible floor level that are less than 16 inches.

17.8.9.6 The inspector should inspect the exterior cleanout's lower edge for heights above grade that are less than 16 inches.

17.8.9.7 The inspector should inspect the bases of chimney flues for distances that are not between 6 and 12 inches below the bottom edges of their cleanout openings.

## 17.9 Sample Reporting Language

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 Phase I Fireplace and Chimney Inspection Report

Client \_\_\_\_\_

Location of fireplace and chimney \_\_\_\_\_

This inspection was performed in substantial compliance with InterNACHI's Phase I Standards of Practice for Inspecting Fireplaces and Chimneys. It exceeds what is required by both InterNACHI's commercial and residential standards of practices. The inspection shall include examination of readily accessible and visible portions of solid fuel-burning, low-heat, fireplaces and chimneys. The inspection is not all inclusive or technically exhaustive. The goal of this inspection is to provide observations which may lead to the decrease of the hazards associated with fireplaces and chimneys.

\_\_\_ The inspector noted solid fuel-burning appliances or fireplaces located where gasoline or other flammable vapors or gases were present.

\_\_\_ The inspector noted unused openings in chimneys or flues.

\_\_\_ The inspector noted missing smoke detectors. A smoke detector should be installed in the same room as the fireplace.

\_\_\_ The inspector noted missing carbon monoxide detectors. A carbon monoxide should be installed in the same room as the fireplace.

\_\_\_ The inspector noted a combustible lintel over the fireplace opening.

\_\_\_ The inspector noted combustible material within 6 inches above the fireplace opening that projects out (less than 1.5 inches) from the face of the fireplace.

\_\_\_ The inspector noted combustible material within 12 inches above the fireplace opening that projects out (more than 1.5 inches) from the face of the fireplace.

\_\_\_ The inspector noted the throat or damper is located less than 8 inches above fireplace opening.

\_\_\_ The inspector noted that the manually-operated damper did not operate or close properly.

\_\_\_ The inspector noted that the damper or damper components had rust or corrosion.

\_\_\_ The inspector noted that the hearth extension had a thickness of less than 2 inches.

\_\_\_ The inspector noted that the hearth extension was less than 16 inches in front or less than 8 inches beyond each side of the opening (fireplace opening less than 6 square feet).

\_\_\_ The inspector noted that the hearth extension was less than 20 inches in front or less than 12 inches beyond each side of the opening (fireplace openings 6 square feet or greater).

\_\_\_ The inspector noted hearths, hearth extensions, or chambers that had joint separation, damage or deterioration.

\_\_\_ The inspector noted single-wall, metal chimneys in one- or two-family dwellings. Single-wall, metal chimneys should not be used in one- and two-family dwellings.

\_\_\_ The inspector noted wall protectors (heat shields) with less than 1-inch air gaps.

\_\_\_ The inspector noted an exposed, interior, single-wall, metal chimney that was not continuously enclosed where it extended through closets, storage areas, or habitable spaces or where the surface of the chimney could come into contact with combustible materials or people.

\_\_\_ The inspector noted an interior, single-wall, metal chimney less than 18 inches from a wood frame wall or combustible material.

\_\_\_ The inspector noted an interior, single-wall, metal chimney (18 inches or under in diameter) less than 2 inches from a noncombustible wall.

\_\_\_ The inspector noted an interior, single-wall, metal chimney (over 18 inches in diameter) less than 4 inches from a noncombustible wall.

\_\_\_ The inspector noted that the distance between an exterior mounted, single-wall, metal chimney was less than 2 feet from a door, window, or walkway.

\_\_\_ The inspector noted that the distance between an exterior mounted, single-wall, metal chimney was less than 18 inches from a wood frame wall or combustible material.

\_\_\_ The inspector noted that the distance between an exterior mounted, single-wall, metal chimney (18 inches or under in diameter) was less than 2 inches from a noncombustible wall.

\_\_\_ The inspector noted that the distance between an exterior mounted, single-wall, metal chimney (over 18 inches in diameter) was less than 4 inches from a noncombustible wall.

\_\_\_ The inspector noted a missing ventilating thimble where a chimney passed through a combustible roof.

\_\_\_ The inspector noted a chimney that terminated less than 3 feet above the highest point where it passed through a roof surface.

\_\_\_ The inspector noted a chimney that terminated less than 2 feet above a portion of a building (ridge, wall, or parapet) within 10 feet.

\_\_\_ The inspector noted a chimney that terminated less than 3 feet from an adjacent building or building opening.

\_\_\_ The inspector noted a chimney that terminated less than 10 feet above grade or a walkway.

\_\_\_ The inspector noted a chimney outlet that jeopardizes people, overheats combustible structures, or that might cause flue gases to enter nearby building openings.

\_\_\_ The inspector noted the slope of a crown of a masonry chimney that directs water into the flue.

\_\_\_ The inspector noted galvanized flues or connectors. Flues and connectors should not be galvanized.

\_\_\_ The inspector noted a rusted or corroded flue.

- The inspector noted a masonry chimney that was not lined. All masonry chimneys should be lined.
- The inspector noted a lining that didn't extend the entire length of the chimney to a level of 2 inches or more above the crown, splay or wash.
- The inspector noted a liner that was visibly softened, cracked, deteriorated or damaged.
- The inspector noted a liner that had excessive accumulation of creosote, soot, or other combustible material.
- The inspector noted a flue that has two or more openings at the same level.
- The inspector noted an appliance venting into the space around and between liners. The remaining space surrounding a chimney liner should not be used as a vent.
- The inspector noted that the size of the flue is too small relative to the size of the fireplace opening. This relationship is the most important factor in achieving sufficient draft. A flue that is too small relative to the fireplace opening will be unable to lift and remove hazardous flue gases to the outside.
- The inspector noted a connector from a solid-fuel burning appliance that had a rise to the chimney of less than a  $\frac{1}{4}$  inch per foot.
- The inspector noted a connector that was not as short or straight as practicable.
- The inspector noted a connector that was covered with insulation.
- The inspector noted a connector of a natural draft appliance connected to the positive pressure side of a mechanical draft system.
- The inspector noted a larger connector entering the flue above a smaller connector.
- The inspector noted a cleanout door or frame that was not made of metal, precast cement or other noncombustible material.
- The inspector noted combustible materials (projected beyond the face of the chimney) that are within 18 inches of a cleanout opening.
- The inspector noted combustible materials stored within 18 inches of a cleanout door.
- The inspector noted a cleanout door that was obstructed or did not close tightly.
- The inspector noted that the height of an interior cleanout's lower edge was less than 16 inches above the lowest accessible floor level.
- The inspector noted that the height of an exterior cleanout's lower edge was less than 16 inches above grade.
- The inspector noted that the base of a chimney flue was not between 6 and 12 inches below the bottom edge its cleanout opening.

This inspection was performed by \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

\_\_\_\_\_

## 18. International Standards of Practice for Inspecting Radon Mitigation Systems

18.1 About radon and these standards for inspecting mitigation systems.

Radon is a radioactive gas that has been found in homes, schools, and buildings around the world. Radon comes from the natural breakdown of uranium in soil and rock and moves up into the indoor air that people breathe. Radon is the leading cause of lung cancer in non-smokers. Radon mitigation systems reduce radon levels in homes and buildings. Inspection of these systems helps assure that they were installed properly and are performing as designed.

Although this standard applies to both commercial and residential radon mitigation systems, this standard exceeds the requirements of both InterNACHI's commercial and residential standards of practices.

### 18.2 Purpose

The purpose of this document is to establish international standards for the inspection of radon mitigation systems. This document also provides universal radon mitigation inspection reporting language.

### 18.3 Definitions

#### 18.3.1 Radon mitigation system-specific definitions

- **Active Soil Depressurization System:** One or more of the following types of radon mitigation system types involving mechanically-driven soil depressurization: sub-slab depressurization, sump (pit) depressurization, drain tile depressurization, sub-membrane depressurization, hollow-block wall depressurization, crawlspace depressurization.
- **Crawlspace Depressurization:** An active radon mitigation system that lowers the air pressure inside a crawlspace in relation to the rooms adjacent or above the crawlspace. A fan draws air directly from the airspace of crawlspace and discharges the air outside. This type of system is typically not the best choice because of the great potential for appliance back-drafting and energy loss.
- **Defect:** A condition of a radon mitigation system that may have an adverse impact on its performance.
- **Depressurization:** A negative pressure created in one area compared to an adjacent area.
- **Discharge:** The end of a vent stack pipe open to outside air.
- **Drain Tile Depressurization:** An active soil depressurization system whereby a suction point is located at a drain tile.
- **Heat Recovery Ventilation System:** A system that lowers radon levels by using outside air to dilute and pressurize indoor air. HRV systems are considered active radon systems.
- **Hollow-block Wall Depressurization:** An active radon system that depressurizes the open spaces within concrete block foundation walls.
- **Inspection:** A non-invasive, visual examination of a radon mitigation system.
- **Manifold Pipe:** Pipe between a vent stack pipe and suction point pipe with two or more suction points.
- **Radon Mitigation System:** Any system designed to reduce the radon concentrations of indoor air.
- **Radon System Piping:** The piping of a passive or active radon system that is composed of suction point pipe, manifold pipe, and vent stack pipe.
- **Readily Accessible:** An item or component that is, in the judgment of the inspector, capable of being safely observed without the removal of obstacles, detachment or disengagement of connecting or securing devices, or other unsafe or difficult procedures to gain access.
- **Sub-membrane Depressurization:** An active radon mitigation system creating a low air pressure under a vapor retarder. A common example is when a vapor retarder (polyethylene plastic sheet) is installed over the exposed dirt floor of a crawlspace. The radon fan draws air from below the vapor retarder and sends it outside.
- **Sub-slab Depressurization (active):** A radon system that creates a low air pressure under a concrete floor using a fan.
- **Sub-slab Depressurization (passive):** A radon system that creates a low air pressure under a concrete floor without the use of a fan.
- **Suction Point:** The end of a radon system that penetrates the slab, wall, vapor barrier, sump cover, or drain tile.
- **Sump (pit) Depressurization System (active):** A radon system that has a suction point installed in the sump (pit).
- **Vent Stack Pipe:** Pipe leading from the suction point (in a system with a single suction point) or the manifold pipe (in a system with more than one suction points) to outside air. In active radon mitigation systems, the radon fan is installed vertically in the vent stack pipe.

### 18.3.2 Terminology commonly found in commercial property inspection reports

Visit <http://www.nachi.org/comsop.htm#101>

### 18.4 Goal of inspection

The goal of the inspection is to provide observations which may indicate that a radon mitigation system was installed improperly, is not performing as designed, or is in need of repair.

### 18.5 Limitations

The inspection is limited to readily accessible and visible portions of the radon mitigation system. The inspection should not be considered all-inclusive or technically exhaustive. It is not a substitute for a radon level measurement.

This standard does NOT require the inspector to:

- inspect any portion of the system that is not readily accessible and visible.
- activate a system that has been turned off, unplugged, or deactivated.
- measure the radon level.

### 18.6 Optional add-on inspection service

Although InterNACHI's Standards of Practice for Inspecting Commercial Properties and InterNACHI's Residential Standards of Practice do not require the inspector to perform radon mitigation system inspections, radon mitigation system inspections may be offered in conjunction with a complete commercial or residential property inspection or as separate, stand-alone inspection services.

## 18.7 Visual Inspection

### 18.7.1 Radon System Type

18.7.1.1 The inspector shall describe the radon system as one of the following types:

- active sub-slab depressurization,
- passive sub-slab depressurization,
- sump (pit) depressurization,
- drain tile depressurization,
- sub-membrane depressurization,
- hollow-block wall depressurization,
- crawlspace depressurization, or
- heat recovery ventilation.

### 18.7.2 Drain Tile Depressurization Systems

The inspector should inspect drain pipes that extend to daylight for missing devices, such as one-way flow valves or water traps, that prevent outdoor air from entering the sub-slab area.

### 18.7.3 Sub-membrane Depressurization Systems

The inspector should inspect the vapor retarder used for sub-membrane depressurization systems (passive or active) for seams that are lapped less than twelve inches, and edges that are not sealed to the walls, posts, or other penetrations.

### 18.7.4 Hollow-block Wall Depressurization Systems

The inspector should inspect hollow-block walls for cracks, openings and open top courses.

### 18.7.5 Crawlspace Depressurization Systems

The inspector should inspect the crawlspace for the presence of asbestos-like material and combustible-fuel served appliances located within the crawlspace or spaces adjacent to the crawlspace.

### 18.7.6 Heat Recovery Ventilation (HRV) Systems

The inspector should inspect the area around the HRV system for the presence of asbestos-like material.

#### 18.7.7 Piping and Fittings

The inspector should inspect for:

- piping that is not PVC or ABS or downspout (outside).
- piping subjected to weather or physical damage that is not Schedule 40.
- pipe and fitting connections of different materials.
- piping that isn't solid and rigid.
- reducers that are installed in the direction of air flow.
- piping that is not continually sloped toward the suction point(s).

#### 18.7.8 Piping Supports

The inspector shall inspect for:

- supports installed more than 6 feet apart on horizontal runs.
- supports installed more than 8 feet apart on vertical runs.

#### 18.7.9 Discharges

The inspector should inspect for:

- discharges less than 10 feet above ground level.
- discharges less than 6 inches above a roof edge, rake, or gable that its stack passes by.
- discharges that exhaust less than 12 inches above a roof surface through which its stack pipe passes.
- discharges that exhaust below the roof surface of the highest roof of the building.
- discharges within 2 feet directly above or less than 10 feet from any window, door, or opening, including those in adjacent buildings.

#### 18.7.10 Radon Fan

The inspector should inspect for:

- interior radon fans installed in occupied or conditioned spaces.
- exterior radon fans installed underground.
- radon fans that are not connected to the piping with removable couplings or flexible connections.
- radon fans that are not mounted vertically.

#### 18.7.11 Condensate bypass

The inspector should inspect for missing condensate bypass mechanisms on systems in cold climates.

#### 18.7.12 Electrical

The inspector should inspect for:

- cord and plug assemblies (supplying power to radon fans) that are more than 6 feet in length.
- cord and plug assemblies (supplying power to radon fans) that pass through walls, floors, ceilings, or are concealed within building components.
- missing means of disconnect such as a dedicated, labeled, electrical breaker, switch, or an electrical plug cord.
- means of disconnects not in sight of their radon fans.
- missing grounded receptacles (required within 6 feet of radon fans installed under roofs).
- missing GFCI receptacles (required within 6 feet of radon fans installed above roofs).
- missing electrical junction boxes, (required within 6 feet of radon fan locations of both active and passive systems).

#### 18.7.13 Condensate Drain Pipes

The inspector should inspect for condensate drain pipes that are not directed into condensate pumps, not directed into trapped floor drains, or do not have 6-inch or greater standing water trap seals.

#### 18.7.14 Monitoring Device

The inspector should inspect for missing air flow or pressure monitoring devices (required to provide easily visible or audible indication of system failure or performance in active systems).

## 18.7.15 Labeling

The inspector should inspect for:

- missing piping labels (required on each floor to identify piping as part of a radon system).
- missing labels on the plastic vapor barrier (if installed).
- labels that are illegible from a distance of 3 feet.
- piping or vapor barrier labels that fail to display one the following: “Radon Mitigation System,” “Radon Reduction System,” “Radon System,” or “Radon Removal System.”
- a missing main label that contains the mitigator’s name and contact information, date of installation, and a recommendation to test the building for radon every two years.
- a missing “Radon,” “Radon Fan,” or “Radon System” label at the disconnect breaker controlling the electrical circuit to the radon fan.

## 18.8 Sample Reporting Language

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Radon Mitigation System Inspection Report

Client \_\_\_\_\_

Location of radon mitigation system \_\_\_\_\_

This inspection was performed in substantial compliance with InterNACHI’s International Standards of Practice for Inspecting Radon Mitigation Systems. It is designed to provide an indication as to whether or not the radon mitigation system was installed improperly, is not performing as designed, or is in need of repair. It is not a substitute for a radon level measurement.

Radon is a radioactive gas that has been found in homes, schools, and buildings around the world. Radon comes from the natural breakdown of uranium in soil and rock and moves up into the indoor air that people breathe. Radon is the leading cause of lung cancer in non-smokers. Radon mitigation systems reduce radon levels in homes and buildings.

The inspector noted that the radon system type was:

- active sub-slab depressurization
- passive sub-slab depressurization
- sump (pit) depressurization (active)
- drain tile depressurization
- sub-membrane depressurization
- hollow block wall depressurization
- crawlspace depressurization
- heat recovery ventilation

**Drain Tile Depressurization Systems**

The inspector noted that the drain pipes that extend to daylight were missing devices, such as one-way flow valves or water traps, that prevent outdoor air from entering the sub-slab area.

**Sub-membrane Depressurization Systems**

The inspector noted that the vapor retarder used for the sub-membrane depressurization systems (passive or active) had seams that were lapped less than 12 inches, or edges that were not sealed to the walls, posts, or other penetrations.

**Hollow-block Wall Depressurization Systems**

The inspector noted that the hollow-block walls had cracks, openings or open top courses.

**Crawlspace Depressurization Systems**

The inspector noted that the crawlspace had the presence of asbestos-like material or combustible fuel served appliances located within the crawlspace or spaces adjacent to the crawlspace.

**Heat Recovery Ventilation (HRV) Systems**

The inspector noted the area around the HRV system had the presence of asbestos-like material.

### Piping and Fittings

- The inspector noted piping that is not PVC or ABS or downspout (outside).
- The inspector noted piping subjected to weather or physical damage that is not Schedule 40.
- The inspector noted pipe and fitting connections of different materials.
- The inspector noted piping that wasn't solid or rigid.
- The inspector noted reducers that were installed in the direction of air flow.
- The inspector noted piping that was not continually sloped toward the suction point(s).

### Piping Supports

- The inspector noted supports installed more than 6 feet apart on horizontal runs.
- The inspector noted supports installed more than 8 feet apart on vertical runs.

### Discharges

- The inspector noted discharges less than 10 feet above ground level.
- The inspector noted discharges less than 6 inches above a roof edge, rake, or gable that its stack passed by.
- The inspector noted discharges that exhausted less than 12 inches above a roof surface through which its stack pipe passed.
- The inspector noted discharges that exhausted below the roof surface of the highest roof of the building.
- The inspector noted discharges within 2 feet directly above or less than 10 feet from any window, door, or opening.

### Radon Fan

- The inspector noted interior radon fans installed in occupied or conditioned spaces.
- The inspector noted exterior radon fans installed underground.
- The inspector noted radon fans that were not connected to the piping with removable couplings or flexible connections.
- The inspector noted radon fans that were not mounted vertically.

### Condensate bypass

- The inspector noted missing condensate bypass mechanisms on a system in a cold climate.

### Electrical

- The inspector noted cord and plug assemblies (supplying power to radon fans) that were more than 6 feet in length.
- The inspector noted cord and plug assemblies (supplying power to radon fans) that passed through walls, floors, ceilings, or were concealed within building components.
- The inspector noted missing means of disconnect such as a dedicated, labeled, electrical breaker, switch, or an electrical plug cord.
- The inspector noted means of disconnects not in sight of their radon fans.
- The inspector noted missing grounded receptacles (required within 6 feet of radon fans installed under roofs).
- The inspector noted missing GFCI receptacles (required within 6 feet of radon fans installed above roofs).
- The inspector noted missing electrical junction boxes (required within 6 feet of radon fan locations of both active and passive systems).

### Condensate Drain Pipes

- The inspector noted condensate drain pipes that were not directed into condensate pumps, not directed into trapped floor drains, or did not have 6-inch or greater standing water trap seals.

### Monitoring Device

- The inspector noted missing air flow or pressure monitoring devices (required to provide easily visible or audible indication of system failure or performance in active systems).

### Labeling

- The inspector noted missing piping labels (required on each floor to identify piping as part of a radon system).
- The inspector noted missing labels on the plastic vapor barrier (if installed).
- The inspector noted labels that are illegible from a distance of 3 feet.
- The inspector noted piping or vapor barrier labels that fail to display one the following: "Radon Mitigation System," "Radon Reduction System," "Radon System," or "Radon Removal System."
- The inspector noted a missing main label that contains the mitigator's name and contact information, date of installation, and a recommendation to test the building for radon every two years.
- The inspector noted a missing "Radon," "Radon Fan," or "Radon System" label at the disconnect breaker controlling the electrical circuit to the radon fan.

This inspection was performed by \_\_\_\_\_ Signature \_\_\_\_\_



## ACKNOWLEDGEMENTS

The *International Standards of Practice for Inspecting Commercial Properties* is the culmination of an effort initiated in 2006 by the International Association of Certified Home Inspectors, Inc. (InterNACHI). These standards continually evolve through the review of proposed changes that may be submitted by any interested party. InterNACHI is especially grateful to lead author Nick Gromicko, lead editor Kate Tarasenko, and the many members of the association who contributed to the development of this document.

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