



NATIONAL ACADEMY OF BUILDING INSPECTION ENGINEERS

STANDARDS OF PRACTICE

For Residential & Small Building Property Condition Surveys

TABLE OF CONTENTS

The Professional Engineer’s Approach	3
Qualifications for Membership in NABIE	4
NABIE Standards of Practice.....	5
Specific Systems Inspections	7
Limitations and Exclusions.....	15
Definitions.....	17
EXCERPTS FROM THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS (NSPE) CODE OF ETHICS FOR ENGINEERS.....	19

Effective January 1, 2001

THE PROFESSIONAL ENGINEER'S APPROACH TO RESIDENTIAL AND SMALL PROPERTY CONDITON INSPECTIONS

Many state boards of licensure for Professional Engineers now recognize that inspection and evaluation of the structural, electrical, and mechanical systems of residences and small buildings are integral parts of the practice of engineering.

In view of this and taking into consideration the growing number of non-engineers in the building and home inspection industry, it became evident that an ethical professional organization was needed to establish practice criteria and verify qualifications of those offering such services to the public.

As a result, the National Academy of Building Inspection Engineers (NABIE) was established in 1989. One of NABIE's principal goals was to develop professional standards in building and home inspection – a specialized engineering practice. NABIE is dedicated to serving the needs of the general public, private and corporate real estate purchasers, investors, brokers, attorneys, and other clients.

The National Academy of Building Inspection Engineers is a chartered affinity group of the National Society of Professional Engineers (NSPE).

QUALIFICATIONS FOR MEMBERSHIP IN NABIE

In addition to an engineering degree (from an accredited school of engineering) and evidence of professional engineering registration, NABIE applicants must also have actual hands-on experience in engineering involving inspection, investigation, and consultation related to the structural components and mechanical systems of commercial and residential buildings. Membership is in three categories: Professional, Executive and Diplomate. Also, an entry-level category, called Intern, allows non-voting membership for the engineer who has limited or no record of experience as a building inspection engineer.

In each category, the requirements include qualifications relating to experience in engineering practice plus experience in building inspection engineering. A minimum number of buildings inspected or evaluated is required. Increasingly more inspection experience is required to elevate to the next category of membership. Candidates for Professional, Executive and Diplomate status are peer-reviewed for their ability to perform and report on a number of previously completed inspections. An Admissions Committee reviews these inspection reports as well as evaluating references from other engineers who know of the candidate's work.

Three other documents to be included in the candidate's portfolio are: evidence of a degree in engineering; evidence of licensure as a professional engineer (has passed a professional engineering examination as is now administered in all 50 states) and evidence of membership in the National Society of Professional Engineers.*

*Registered Architects who are members of the American Institute of Architects (AIA), or other national architectural societies satisfactory to the Admissions Committee may petition the Admissions Committee for admission by providing evidence of experience and qualifications comparable to that required above. Admission requires recommendations by the Admissions Committee, and approval by the board.

THE NABIE STANDARDS OF PRACTICE

More than 120 years of consulting engineering practice, including the inspection of more than 350,000 buildings by the Standards Committee members, stand behind the NABIE standards of practice – justified reason for considering them the industry-wide criteria for licensed professional engineers performing building inspections.

The professional engineer using NABIE Standards prepares a written report about the overall physical condition of the premises, describes pertinent components or building systems, and identifies deficiencies or conditions that would present a threat to the public or occupants or are in immediate need of repair or replacement.

An inspection using these standards shall not be construed as a code compliance inspection, exhaustive technical analysis, or ability to identify concealed conditions or latent defects.

The following two areas of evaluation requiring engineering expertise are recommended for a pre-purchase inspection of residential or commercial property performed by a Professional, Executive or Diplomate Member of the National Academy of Building Inspection Engineers.

1. Overall structural soundness based on visual evidence.
2. Heating, air-conditioning, plumbing and electrical systems evaluated in terms of an overview of the capacity and adequacy for use at the time of inspection in the opinion of the engineer.

The Standards of Practice may partially apply to other types of inspections performed by NABIE members.

Cost estimates are not normally provided in a standard inspection or report.

If the licensed professional engineer cannot evaluate an item listed in the standard, the reason will be stated in the report. The engineer will be allowed to use his or her professional judgment as to whether items can be adequately examined and what further steps may need to be taken to properly evaluate an important component.

- a. Detailed numerical analysis as required for a certificate of occupancy or building code compliance is not required. Recommendations for such analysis, if deemed necessary, should be made in the building inspection report.
- b. Heating, air-conditioning, plumbing and electrical evaluations will not include detailed numerical analysis or identification of electrical circuits, heating or cooling zones, etc., nor evaluation for code requirements. Recommendations for such analysis, if deemed necessary, should be made in the building inspection report.

Recognizing that licensed professional engineers are trained and licensed to provide opinions based on their judgment and experience and that the engineer is performing within the engineer's area of expertise, the broad areas of evaluation stated herein should be included in any inspection provided by a member of the National Academy of Building Inspection Engineers (NABIE).

It is the intent of these standards of practice to encourage a practical approach in the performance of an inspection.

SPECIFIC SYSTEMS INSPECTIONS

REPORTS ARE THE RESULT OF VISUAL INSPECTION OF ACCESSIBLE AND OBSERVABLE AREAS AT THE TIME OF THE VISUAL INSPECTION

1.0 SITE CHARACTERISTICS

1.1 The engineer will observe, report and evaluate on-site characteristics as follows:

- 1.1.1 Surface drainage characteristics as related to the structure
- 1.1.2 Condition of walkways and exterior stairways
- 1.1.3 Condition of driveways and other paved or masonry areas

1.2 The engineer is not required to examine/report on:

- 1.2.1 Retaining walls, sea walls, waterfront bulkheads, docks and piers. These and other items not included as part of the building inspection can be inspected by special agreement
- 1.2.2 Landscaping, trees and shrubs

2.0 STRUCTURE

2.1 The engineer will observe, report and evaluate structure and structural adequacy as follows:

- 2.1.1 Visible foundation components
- 2.1.2 Visible floor framing
- 2.1.3 Visible roof framing
- 2.1.4 Structural performance based on visible/detectable movement
- 2.1.5 Structural soundness and adequacy based on visual inspection
- 2.1.6 Visible evidence of significant rot, wood-boring insect damage, or other forms of structural deterioration which would have an impact on the overall structural soundness and structural integrity of the building
- 2.1.7 Visible evidence of structural distress or structural damage such as leaning walls, sagging beams or joists, unbraced trusses, damaged framing, fire damage, etc.
- 2.1.8 Visible evidence of failure or deterioration of the foundation system such as severe cracking, inward movement, frost heave

2.2 The engineer is not required to:

- 2.2.1 Enter crawl spaces or attic spaces where access opening is less than 18" x 24"
- 2.2.2 Enter spaces where headroom is less than 30"
- 2.2.3 Enter spaces where entry is obstructed

- 2.2.4 Enter spaces where adverse or dangerous situations are evident or suspected
- 2.2.5 Enter spaces such as unfloored attics, blocked areas, etc. where entry may cause property damage
- 2.2.6 Disturb or remove owners' belongings
- 2.2.7 Evaluate geological, geotechnical or hydrological conditions

3.0 BASEMENT/CRAWL SPACE WATER ENTRY

3.1 Engineer will observe, report and evaluate basement/crawl space water entry as follows:

- 3.1.1 Evidence of water entering the crawl space or basement
- 3.1.2 Water control systems such as sumps, sump pumps, drains
- 3.1.3 Proper discharge of mechanical water control systems
- 3.1.4 Obstructions to proper operation
- 3.1.5 Roof rainwater runoff system including gutters, downspouts, extensions or splash blocks, as it relates to possible crawl space/basement water entry
- 3.1.6 Relevance of exterior surface drainage to basement/crawl space water ingress
- 3.1.7 All conditions which would restrict the engineer's ability to examine the presence of water entry

3.2 The engineer will test:

- 3.2.1 Water control systems, where possible, to confirm operation

3.3 The engineer is not required to:

- 3.3.1 Operate inactive mechanical components
- 3.3.2 Excavate subsurface drainage systems

4.0 VENTILATION

4.1 The engineer will observe, report and evaluate ventilation as follows:

- 4.1.1 Basement/crawl space ventilation adequacy and condition
- 4.1.2 Attic ventilation adequacy and condition
- 4.1.3 Kitchen and bathroom mechanical ventilation adequacy and condition
- 4.1.4 Laundry room ventilation adequacy and condition
- 4.1.5 Evidence of condensation and other consequences of inadequate ventilation when visible using normal inspection techniques

4.2 The engineer is not required to:

- 4.2.1 Evaluate ventilation relative to code compliance (evaluation is for practical adequacy)
- 4.2.2 Evaluate concealed ventilation systems

5.0 HEATING

5.1 The engineer will observe, report and evaluate all permanently installed primary and secondary heating systems as follows:

- 5.1.1 Type of heat (steam, hot water, hot air, etc.)
- 5.1.2 Type of fuel or energy used
- 5.1.3 Type of heating unit (furnace, steel boiler, cast iron boiler), the manufacturer and the rated output capacity (BTUH) based on nameplate data
- 5.1.4 Physical condition of the heating equipment
- 5.1.5 Zoning/distribution, condition and general adequacy (not performance test or balance)
- 5.1.6 Condition of visible components including piping, ducts, thermostats, exposed flues

5.2 The engineer will operate using operator controls:

- 5.2.1 All heating equipment

5.3 The engineer is not required to:

- 5.3.1 Make heat loss calculations to determine adequacy of capacity
- 5.3.2 Operate equipment when weather conditions or other circumstances may cause equipment damage
- 5.3.3 Ignite solid fuel fires
- 5.3.4 Ignite gas pilot lights
- 5.3.5 Perform smoke, carbon monoxide or draft tests on equipment
- 5.3.6 Override automatic safety controls to activate the equipment
- 5.3.7 Determine if equipment, flues or related accessories meet current codes or are installed in compliance with current codes
- 5.3.8 Operate humidifiers or electronic air filters
- 5.3.9 Check each and every room unit for capacity

6.0 CENTRAL AIR CONDITIONING

6.1 The engineer will observe, report and evaluate all permanently installed primary and secondary central air-conditioning equipment as follows:

- 6.1.1 Cooling and air handling equipment type
- 6.1.2 Physical condition of the cooling equipment
- 6.1.3 Zoning/distribution condition and general adequacy (not performance test or balance)

6.2 The engineer will activate using operator controls:

- 6.2.1 All permanently installed equipment

6.3 The engineer is not required to:

- 6.3.1 Operate when weather conditions or other circumstances may cause equipment damage
- 6.3.2 Operate prior to unit being serviced after seasonal shutdown or when off-season equipment covers are in place
- 6.3.3 Take pressure or temperature readings using gauges
- 6.3.4 Make calculations to determine capacity

7.0 ENERGY EFFICIENCY

7.1 The engineer will observe, report and evaluate energy efficiency as follows:

- 7.1.1 The presence or absence of insulation in the crawl space, basement and attic and appropriate vapor barrier
- 7.1.2 Presence or absence of storm windows on single pane glass
- 7.1.3 Recommendations for reducing energy losses, when appropriate

7.2 The engineer is not required to:

- 7.2.1 Perform energy calculations
- 7.2.2 Perform lif-cycle cost analysis

8.0 PLUMBING SYSTEMS

8.1 The engineer will observe, report and evaluate plumbing systems as follows:

8.1.1 Interior water supply distribution system including:

- Water supply and piping condition
- Fixtures, faucets and valve condition
- Water pressure and water flow
- Evidence of leaks
- Presence of visible cross connections and backflow prevention devices
- Pipe insulation

8.1.2 Interior drain, waste and vent system including:

- Traps, drains, waste and vent piping, and piping supports
- Evidence of leaks
- Visible water drainage piping condition
- Evidence of problems with wastewater systems

8.1.3 Domestic hot water system including:

- Heating equipment and energy source
- Presence of automatic safety controls
- Chimney, flue condition and vents

8.1.4 Fuel storage and distribution systems including:

- Condition of interior fuel storage
- Evidence of leaks in above-ground oil tanks and visible piping
- Condition of visible gas piping, gas metering and LPG systems

8.2 The engineer will operate:

- 8.2.1 All interior fixtures for adequacy of pressure where not connected to a household appliance
- 8.2.2 All interior water fixtures for adequacy of drainage
- 8.2.3 All interior water fixtures for presence or absence of leaks

8.3 The engineer is not required to:

- 8.3.1 Test water pressure and water flow with the use of instruments or measurements
- 8.3.2 Inspect or test underground septic tank
- 8.3.3 Operate valves of any sort or safety controls
- 8.3.4 Test and assess water quality

9.0 ELECTRICAL

9.1 The engineer will observe, report and evaluate electrical equipment as follows:

- 9.1.1 Service entrance conductors
- 9.1.2 Service equipment, grounding, main overcurrent device, main and distribution panels
- 9.1.3 Amperage and voltage ratings (adequacy)
- 9.1.4 Branch circuit overcurrent devices
- 9.1.5 Ground Fault Circuit Interrupter (GFCI) devices
- 9.1.6 Need for immediate or imminent repairs and/or upgrading
- 9.1.7 Any observed aluminum or copper-clad aluminum branch circuit wiring
- 9.1.8 Type of conductors

9.2 The engineer will operate:

- 9.2.1 A representative number of installed lighting fixtures, switches and receptacles located inside the house unless specifically noted otherwise in the report
- 9.2.2 Ground Fault Circuit Interrupter (GFCI) devices

9.3 The engineer is not required to:

- 9.3.1 Insert any tool, probe or testing device inside the panels
- 9.3.2 Test or operate any overcurrent device
- 9.3.3 Dismantle any electrical device or control other than to remove the cover of the main control panel

- 9.3.4 Evaluate telephone, security, cable TV, intercoms or other low voltage ancillary wiring which are not part of the primary electrical distribution system
- 9.3.5 Operate timing devices

10.0 INTERIOR

10.1 The engineer will observe, report and evaluate interior components as follows:

- 10.1.1 Walls, ceilings and floors including trim and tilework
- 10.1.2 Steps, stairways, balconies and railings
- 10.1.3 Cabinets and counters (representative number)
- 10.1.4 Representative number of windows and doors including hardware
- 10.1.5 Separation walls, ceilings and doors between a dwelling unit and an attached garage or adjoining dwelling unit

10.2 The engineer is not required to:

- 10.2.1 Comment on aesthetics or design
- 10.2.2 Comment on wear and tear
- 10.2.3 Comment on interior paint and wall finishes except tilework
- 10.2.4 Comment on adequacy of code compliance of fire separation elements

11.0 EXTERIOR

11.1 The engineer will observe, report and evaluate exterior components as follows:

- 11.1.1 Exterior wall coverings, flashings and trim
- 11.1.2 Primary windows and doors (not storm windows)
- 11.1.3 Garage door operators including automatic reversing operation
- 11.1.4 Decks, balconies, stoops, steps, areaways and porches including railings
- 11.1.5 Eaves, soffits and fascias

11.2 The engineer is not required to:

- 11.2.1 Report on outbuildings unless included by separate agreement prior to the inspection
- 11.2.2 Report on construction details and latent defects of exterior insulation and finish system (E.I.F.S.) exteriors not readily evident by visual inspection

12.0 ROOFING

12.1 The engineer will observe, report and evaluate roofing as follows:

- 12.1.1 Roof surfacing
- 12.1.2 Roof drainage systems
- 12.1.3 Flashing, where visible
- 12.1.4 Skylights, chimneys and roof penetrations
- 12.1.5 Evidence of leaks, condensation

12.2 The engineer is not required to:

- 12.2.1 Walk on the roofing but should describe the methods used to observe and evaluate the roofing components, such as use of binoculars, ground observations, etc. The exception would be flat roofs that are accessible by door, adequately sized and accessible window, or less than ten feet above grade
- 12.2.2 Make thermographic, infrared, capacitive or radiographic scans of roof surface

13.0 CHIMNEYS

13.1 The engineer will observe, report and evaluate chimneys as follows:

- 13.1.1 Chimney flue liners, where visible from grade level
- 13.1.2 Condition of flue connections
- 13.1.3 Structural integrity of chimney
- 13.1.4 Fireplace dampers
- 13.1.5 Fireplaces

13.2 The engineer is not required to:

- 13.2.1 Test combustion devices, such as fireplaces (lighting fireplace)
- 13.2.2 Examine chimney from rooftop

14.0 SAFETY

14.1 The engineer will observe, report and evaluate:

- 14.1.1 Condition, need for, and design of handrails and guardrails
- 14.1.2 Condition of stairways
- 14.1.3 Glass vulnerable to human impact
- 14.1.4 Presence of smoke alarms
- 14.1.5 Apparent presence of fire separation at chimneys and garages
- 14.1.6 Solid fuel appliance installation (wood stove) unless specifically noted as not included in the report

14.2 The engineer is not required to:

- 14.2.1 Check code compliance for dimensional requirements
- 14.2.2 Check ADA compliance
- 14.2.3 Determine that materials comply with prevailing codes

15.0 ENVIRONMENTAL

15.1 The engineer will observe, report and evaluate:

- 15.1.1 Presence of suspected asbestos-containing materials (ACM) by visual observation
- 15.1.2 Clearly visible evidence of underground storage tanks (UST)
- 15.1.3 Clearly visible evidence of urea formaldehyde foam insulation (UFFI)

15.2 The engineer is not required to:

- 15.2.1 Conduct comprehensive environmental scan
- 15.2.2 Report suspected hazardous materials not noted above
- 15.2.3 Conduct tests for hazardous materials
- 15.2.4 Test for indoor air quality

16.0 RELATED STRUCTURES/COMPONENT/FACILITIES

16.1 The engineer is not required to inspect any of the following:

- 16.1.1 Solar heating systems
- 16.1.2 Geothermal systems
- 16.1.3 Outdoor barbecues
- 16.1.4 Saunas
- 16.1.5 Swimming pools
- 16.1.6 Tennis courts
- 16.1.7 Piers and docks
- 16.1.8 Boathouses
- 16.1.9 Waterfront bulkheading
- 16.1.10 Cabanas
- 16.1.11 Cottages/guesthouses
- 16.1.12 Private water supply
- 16.1.13 Private waste water analysis
- 16.1.14 Satellite dish systems
- 16.1.15 Any items not specifically included in this standard

NOTE: Any special or additional inspections may be available by special agreement prior to the inspection.

LIMITATIONS AND EXCLUSIONS

Engineers are not required to:

- a. Prepare calculations within the scope of a building inspection
- b. Remove materials, furnishings, personal property, or any other obstructions (snow, ice, debris, suspended ceiling tiles, secured shut access panels, etc.)
- c. Operate equipment not typically operated by normal layman user controls
- d. Conduct any exploratory probing or testing
- e. Report on architectural and cosmetic incidentals (carpeting, wallpaper, draperies, blinds, built-in furniture, trim)
- f. Report on security systems, intercoms, sound systems, fire alarm systems, cable TV, telephone or other low voltage ancillary wiring
- g. Discover or evaluate underground systems, tanks, lawn sprinklers, subsurface soil conditions, streams, groundwater levels, well casings, wells and pumps, septic and on-site waste disposal systems
- h. Provide research for code violations, report on code compliance, ordinances, restrictive covenants, Certificate of Occupancy or Completion, verify building department approvals, title surveys, zoning, environmental compliance, and land use, or review drawings
- i. Provide an appraisal of the property
- j. Comment on whether the property should be purchased, leased, rented, etc.
- k. Perform any procedure or enter any area which has the potential to damage the property or its components or be dangerous to the engineer or other persons
- l. Attempt to repair or operate any system or component which does not respond to normal layman user controls or which is shut down or otherwise inoperative
- m. Report on items not permanently installed (household appliances, personal property)
- n. Report on the presence or absence of pests such as wood-damaging organisms, rodents, birds, droppings, or insects, etc., except as it may relate to the structural soundness and adequacy of the building
- o. Perform an environmental assessment or laboratory testing to determine the presence or absence of any hazardous substance including, but not limited to: toxins, carcinogens, noise, contaminants of soil, water and air
- p. Perform a wind, earthquake, seismic or flood insurance study
- q. Test items requiring a special permit or training (radon, lead, asbestos, etc.)
- r. Prepare a budget or project operating costs for any purpose
- s. Evaluate or determine the effectiveness of any system installed to control or remove suspected or known hazardous materials
- t. Perform acoustical or vibration testing or evaluation of noise or vibration characteristics of any system or component
- u. Determine the material of which components or systems are made
- v. Perform electromagnetic field testing
- w. Provide policies of insurance for building failure

- x. Provide opinions regarding handicap characteristics or health characteristics of the premises insofar as allergies, disease or disabilities are concerned
- y. Provide opinions regarding historic aspects of the premises
- z. Report on any device or system which has not been specifically indicated herein, this includes, but is not limited to: solar heating systems, geothermal systems, outdoor barbecues, saunas, steam baths, satellite dishes, intercom systems, alarm systems, lawn sprinkler systems, etc.

DEFINITIONS

Access panel: A panel used for the purpose of gaining access to a piece of equipment for maintenance, repair, or cleaning of the equipment; a panel used to gain access to an area such as a crawl space or attic cavity

Activate: To turn on or operate a piece of equipment by normal means, such as turning on the furnace with the thermostat controls

Automatic safety controls: A device used to protect people from injury and equipment from malfunction caused by excessive pressure, temperature, or other hazardous operating conditions

Central air conditioning: A system used to cool and/or dehumidify the space of a building in one or more room(s) by means of duct or chilled water pipe distribution; is built into the structure of the building with direct wiring from electrical control panel

Central heating: A system used to warm the space of a building in more than one room by means of duct or pipe distribution; it is built into the structure of the building; a building could also be heated by individual room electric heaters throughout the premises

Component: A unit part of a system, such as the gas valve in the furnace or a rafter of a roofing system

Cosmetic: A condition that affects the appearance of an item rather than the structural integrity or intended function thereof

Crawl space: An area under a home enclosed by the foundation walls and generally 3 to 4 feet high which can only be examined by crawling or being bent over; this space usually will have plumbing supply and drain lines, electrical wiring, and mechanical systems; a crawl space with a clearance of less than 30" is considered inaccessible

Cross connection: Any physical connection or arrangement between potable water and any other water of unknown or questionable source of possible contamination

Dangerous or adverse condition: Any condition or situation which has the possibility of causing injury or health threats to the inspection engineer; these conditions may require special protective clothing or safety equipment and in certain cases, such as crawl space areas, cannot be entered until the condition is corrected

Detached buildings: Any structure apart from the main structure and under a separate roof and foundation system

Direct-wired components: A device which is connected to the electrical system and cannot be readily unplugged or disconnected

Engineering: The profession of putting scientific knowledge to practical uses by utilizing mathematics, chemistry, physics, and the engineering sciences for analytic or design work

Flue pipe: The pipe connecting the firing chamber exhaust of a hydrocarbon-fueled device such as a heating unit or water heater to a chimney

Heat source: Any device used for the purpose of adding heat to an area

Household appliance: A device, either freestanding or built in, used to provide an ongoing function by providing a specific household duty, such as a dishwasher, oven, range, garbage disposal, washer, dryer, etc.

Installed: An item that is physically attached to the home with nails, screws, etc., and could not be removed by unplugging or disconnecting by hand

Latent defect: A defect not visible, detectable or apparent during a visual inspection

Normal user operating controls: Controls such as a thermostat of the heating and cooling system used to operate equipment by a layman homeowner or tenant

Observe: To make a visual study of a component without removing covers, finished surfaces, blocked access panels, debris, belongings

Operate: To activate a device by the normal user operating controls

On-site water supply quality: Water quality is based on the bacterial, chemical, mineral, metal, and solids content of the water

On-site water supply quantity: Water quantity is the accumulated water volume resulting from the rate of water flow

Proper fixture drainage: The rate of drainage flow sufficient to prevent overflowing or backing up during normal operation and use

Proper water pressure: Pressure needed to produce a rate of water flow of a plumbing fixture that provides sufficient flow when another fixture is operated at the same time

Readily accessible: Having the ability to inspect an item or equipment without having to move or relocate furniture or stored items or damage paint finishes; ability to enter through access panels large enough for an average sized person; panels are not considered accessible if they cannot be reached with the aid of a four-foot ladder or require tools to open; minimal access opening is 18" x 24"

Representative number: A defined number of items to be inspected when there is a number of like items in a facility, building, or home, such as electrical switches, outlets and windows; this number will be one per room or one per side of the exterior

Roof drainage system: The system used to carry rain water from a roof away from the foundation of a structure; this system consists of guttering, downspouts, splash blocks, and proper grade for drainage

Safety glazing: Tempered glass or plastics

Shut down: When an item cannot be operated by normal controls, it is considered to be shut down; the engineer is not required to light pilot lights, turn on gas supply, switch breakers, replace fuses or light bulbs, plug in equipment, open closed water valves, etc.; all items intended to be a part of the inspection shall be in operation prior to the inspection

Structure: Any construction designed and used to provide support against natural forces in addition to live and dead loads

Structural component: A member used for the purpose of supporting certain design loads

System: A specific part of a building composed of several components used for a specific purpose, such as the electrical system, HVAC system, plumbing system, etc.

Technically exhaustive: An inspection which involves the extensive use of measurements, instruments, testing calculations, exploratory destructive probing when justified, and other means to develop scientific or engineering findings, conclusions and recommendations whereas a building inspection as covered by these standards of practice is comprised only of a visual inspection and brief operation of equipment

Excerpts from

The National Society of Professional Engineers

Code of Ethics for Engineers

... The services provided by engineers require honesty, impartiality, fairness and equity; in addition, they must be dedicated to the protection of the public health, safety and welfare. In the practice of their profession, engineers must perform under a standard of professional behavior which requires adherence to the highest principles of ethical conduct.

Among fundamental canons of the code are obligations to perform services only in areas of the engineer's competence, to issue public statements only in an objective and truthful manner, to act in professional matters as faithful agents or trustees for each employer or client; and to avoid deceptive acts in the solicitation of professional employment ...

The complete *Code of Ethics for Engineers* is available from the National Academy of Building Inspection Engineers, P.O. Box 403, Wilks-Barre, PA 18703 (800)-294-7729