

# HORIZON INSPECTION SERVICES

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## PROPERTY INSPECTION REPORT

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**Prepared For:** Mr. & Mrs. Homebuyer

**Property Address:** 1234 Anywhere; Houston, TX

**Report Number:** 060000

**Inspector:** Joe Gonzales III; Professional Real Estate Inspector License #427

**Date:** May 19, 2006

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The inspection of the property listed above must be performed in compliance with the rules of the Texas Real Estate Commission (TREC).

The inspection is of conditions which are present and visible at the time of the inspection, and all of the equipment is operated in normal modes. The inspector must indicate which items area in need of repair or are not functioning and will report on all applicable items required by TREC rules.

This report is intended to provide you with information concerning the condition of the property at the time of inspection. Please read the report carefully. If any item is unclear, you should request the inspector to provide clarification.

It is recommended that you obtain as much history as is available concerning this property. This historical information may include copies of any seller's disclosures, previous inspection or engineering reports, reports performed for or by relocation companies, municipal inspection departments, lenders, insurers, and appraisers. You should attempt to determine whether repairs, renovation, remodeling, additions, or other such activities have taken place at this property.

Property conditions change with time and use. Since report is provided for the specific benefit of the client(s), secondary readers of this information should hire a licensed inspector to perform an inspection to meet their specific needs and to obtain current information concerning this property.

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### ADDITIONAL INFORMATION PROVIDED BY INSPECTOR

**RIGHT/LEFT AND FRONT/REAR** may be used as orientation terms (from a front view perspective) for location of specific areas or items described in the report.

**PROPERTY DESCRIPTION:** The structure inspected is a two-story wood framed residence supported by a slab type foundation. The exterior walls are covered with brick veneer and siding, the roof is covered with composition shingles. A two car garage is attached to the dwelling. At the time of the inspection, this dwelling was vacant. The age of this structure, as I understand, is approximately 6 – 7 years old. For the purpose of this report, it is assumed that the front of the house faces east.

Dry weather conditions prevailed at the time of the inspection. The outside temperature was in the 80's. Occasional rain has been experienced in the days leading up to the inspection.

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Additional pages may be attached to this report. Read them carefully. This report may not be complete without the attachments. If an item is present in the property, but is not inspected, the "NI" column will be checked and an explanation is necessary. Comments may be provided by the inspector whether or not an item is deemed in need of repair.

**I = Inspected NI = Not Inspected NP = Not Present R = Not Functioning or In Need of Repair**

I	NI	NP	R	Inspection Item
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**I. STRUCTURAL SYSTEMS**

**A. Foundations** (If all crawl space areas are not inspected, provide an explanation.)

*Comments (An opinion on performance is mandatory.):* There are no generally accepted and purely objective standards for determining foundation failure. The determination of foundation performance is a "subjective opinion" based on the knowledge and experience of the inspector coupled with quantitative measurements, visual observations and the functional aspects of the structure and may vary with the opinions of other inspectors.

Circular grouting and exposed/rusted cable ends on the perimeter beam suggest that this is a post tension cable/slab foundation. Post tension cable foundations are designed to flex and will typically produce cracks.

Where visible, the perimeter beam revealed no sign of distress. Foundation corner fracture(s) existed which are generally the result of differential movement between the masonry walls (expanding) and the concrete foundation (shrinking). Although this condition did not appear to adversely affect the structure, sealing these cracks may be desired as they could provide hidden access for wood destroying insects. A Structural Pest Control licensee can be retained for more specific information. Please note that the corners should be examined periodically. If the fracturing worsens and the corner(s) break off then the brick veneer may lack proper support and repair would be needed.



The brick veneer revealed no significant cracks or separation from joined materials such as frieze boards and window/door frames. Visual sighting of the brick lines revealed no deflection.

The 1<sup>st</sup> story interior walls and ceilings showed little affects of movement in that no significant fractures or irregularities were visible. There was no evidence of structural distortion. The 1<sup>st</sup> story door/window frames were reasonably plumb and square. The floor slab revealed no noticeable deflections and after walking the 1<sup>st</sup> story floors, I perceived the foundation to contain no significant unlevelness.

Floor slab fracture(s) existed within the garage. It is not uncommon for concrete to crack as a result of drying and shrinkage during the curing process. Other floor slab fracture(s) may be present under the floor covering in the house. Such cracks do not adversely affect the performance of the foundation.

Random 1<sup>st</sup> story floor surface measurements were taken with a Compulevel™. Allowances were made for the difference in floor covering. Zero reference is rechecked for repeatability. The following measurements were taken:

- Foyer, SW: 0 (zero reference surface)

- Foyer, SE: +0.4"
- Living room, SE: +0.4"
- Living room, SW: +0.5"
- Living room, NW: +0.4"
- Breakfast room, SW: +0.4"
- Breakfast room, NW: +0.3"
- Kitchen, NW: +0.4"
- Kitchen Pantry, NE: +0.8"
- Dining room, NW: +0.5"
- Dining room, NE: +0.7"
- Dining room, SE: +0.8"

The measurements indicate a variance of approximately 0.8". It should be noted that slab foundations may reveal some unevenness due to workmanship (as built). Therefore, measurements do not necessarily represent the actual degree of deflection from differential movement of the foundation. Although deviations/slopes in the foundation can assist the inspector in evaluating the foundation performance as to the direction and degree of possible movement, these deviations/slopes are not, by themselves, a measurement of foundation movement. Based on the random floor measurements taken, it is my opinion that the slab was reasonably even today.

The tree(s) near the house did not appear to adversely affect the foundation at this time. However, the tree roots may extract water from the soil causing a drying or shrinking affect. You may wish to consult with a qualified service company about installation of root barriers which may prevent feeder roots from nearby trees from migrating below the structure and extracting moisture from under the slab foundation. A root barrier typically consists of placing a barrier material in a 4' trench extending along the foundation. Root barriers are usually placed as far from the tree and as near to the foundation as possible in order to decrease damage to the tree roots. Typically, the barriers are 4' deep since the majority of the volume change occurs in the upper 4' of the soil.

**FOUNDATION PERFORMANCE OPINION:** In my opinion, the foundation appeared to be providing adequate support for this dwelling based on a limited visual observation today. At this time, I did not observe any evidence that would indicate the presence of significant deflections in the foundation; there were no notable functional problems resulting from foundation movement; the interior and exterior stress indicators showed little affects of movement and I perceived the foundation to contain no significant unlevelness after walking the floors.

This opinion would not be applicable to future changing conditions. No accurate prediction can be made of future foundation movement. *Opinions are based on observations made without the use of sophisticated testing procedures. Therefore, the opinion expressed is one of apparent condition and not absolute fact.*

*NOTE: This inspection is not an engineering report, and should not be considered one. If any cause for concern is noted on the report, or if you want further evaluation, you should consider an evaluation by an engineer.*

#### **Deficiencies:**

- ◆ Exposed/rusted post tension cable ends existed at the right and rear perimeter beams indicating the need for repair. Exposure to the elements can cause rusting and reduced strength. The cables should be cleaned and covered over with a non-shrink/non-metallic grout. Under no circumstances should the grout used for this repair contain any chemicals known to be destructive to the prestressing steel. Contact a *qualified* service company for corrective action. Please note that some areas of the perimeter beam(s) was/were hidden from view by soil or vegetation; therefore, other exposed/rusted cable tendons may exist.



Limitations of Foundation Inspection

The foundation inspection was not invasive or technically exhaustive, nor did it include engineering design, testing or analysis. There are no widely accepted formal standards for determining foundation performance due to the large number of variables which can influence this determination. It is recognized that a diagnosis of foundation performance can possibly be compromised by the inability to gain access to large portions of the foundation for visual examination and the lack of design and construction parameters that often affect foundation performance analysis. Inspection of the foundation components was limited by (but not restricted to) the following conditions:

- The inspection does not include an assessment of geological conditions and/or site stability.
- Structural components concealed behind finished surfaces could not be inspected. Cracks and/or separations that are not open to view (i.e. under floor and wall coverings, concealed by vegetation, etc.) cannot be reported. Since our inspection is visual only, you should contact a qualified specialist if you desire a more invasive study of the foundation.

**I NI NP R**

**B. Grading & Drainage**

*Comments:* Dry weather conditions existed at the time of this inspection and yard drainage was not observed firsthand. Elevation of the slab above grade and drainage away from the foundation appeared sufficient. The soil should always be kept below the top of the foundation ensuring adequate drainage away from the structure.

Information as to whether this property lies in the flood plain or if it has ever been subjected to rising water was not determined. The owner may be able to provide a history.

Expansive soils that are common to this region can adversely affect the performance of a foundation. Variations in the moisture content produces a disproportionate degree of swelling and shrinkage of the soil which can result in differential movement. Changes in the moisture content can be caused by any of the following:

- Poor drainage away from the foundation.
- Standing water at one or more points around the foundation.
- Leaking plumbing lines.
- Non-uniform watering of plants and lawns around the structure.
- Excessive vegetation, plants and trees adjacent to the foundation.
- Insufficient watering during dry weather conditions.

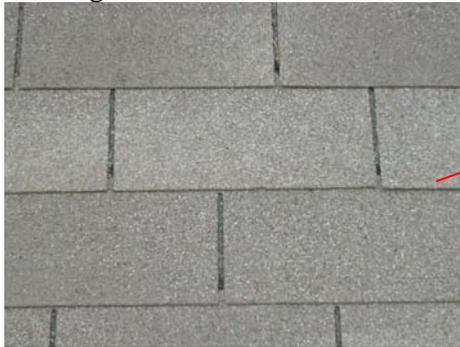
It is important that you maintain proper drainage around the structure in such a way that water runs away from the building and off the site. When the foundation is located on expansive clay soils, watering of the soil/landscape around the foundation can be an effective way of maintaining moisture stability and preventing volume changes. Proper drainage coupled with watering of the soil/landscape around the foundation in a systematic and scheduled manner should aid in maintaining a constant moisture content. ***If the structure is left unattended for an extended period of time, provisions should be made to have the yard watered frequently during dry periods.***

**I NI NP R**

**C. Roof Covering** (If the roof is inaccessible, report the method used to inspect.)

*Comments:* The roof materials were examined from the roof level. The roof is a gable/hip design and was covered with 3-tab granule surface composition shingles. The most common granule surface shingle in this region of the country uses asphalt as the waterproofing and fiberglass as the reinforcement. The granules are adhered to the asphalt to protect the shingles from the harmful ultraviolet rays of the sun.

The shingles were intact and in satisfactory general condition in that no significant granule deterioration or cracking was observed.



General condition of shingles

Discoloration of various shingles existed which is generally due to algae. According to the Asphalt Roofing Manufacturers Association, the algae that causes this discoloration do not feed on the roofing material and therefore do not affect the service life of the roofing. Any attempts to scrub or power wash the roof can loosen granules and shorten the remaining service life.

The roof flashings deficiencies are noted below.

Most roof leaks are not from holes in shingles, but from flashing problems. Since many portions of the various metal flashings in any structure are not visible, no comment can be made as to the condition of these hidden flashing areas.

Water penetration may occur at any time. It is not possible for any human being to state that any roof is water tight or leak free. Under severe weather conditions with wind driven rain or extended periods of rainfall, any roof may develop leaks. Any significant amount of rainfall accompanied by gusts, high winds and/or flying debris may damage the roof covering.

**Deficiencies:**

- ◆ A random check of the shingles indicates that the tabs on the starter row shingles were not bonded to the starter strip and may be vulnerable to wind uplift. Per the Asphalt Roofing Manufacturer’s Association, the bottom starter course shingle should be placed with the seal tab on the eave, facing upward, so that the first visible row of shingles has a means of sealing at the eave. This can be easily corrected by hand sealing the first course of shingles to the starter strip with an asphalt plastic cement.



- ◆ A random check of the shingles indicates that the valley shingles were not bonded to the layer below. Per the Asphalt Roofing Manufacturers Association, each shingle end should be embedded in a 3” wide strip of asphalt cement.
- ◆ Exposed roof fasteners existed at the ridge(s) and base flashing(s). Fasteners should not be visible on the roof surface as water may penetrate around the shank(s). This can be easily corrected by sealing the exposed fasteners with a roofing mastic.
- ◆ The storm collar at the water heater exhaust pipe was not properly sealed where the pipe passes through the roof base flashing.



- ◆ Buckled base flashings existed at various points. All base flashings should be secured as needed.



- ◆ The elastomeric material around various plumbing stacks was worn and there is a possibly of water penetration unless repaired.



- ◆ Roof/brick veneer intersections are vulnerable to leakage due to differential movement between the materials. To help provide a water seal, a base flashing should be attached to the roof deck and brick. Counter flashing should then be installed to the brick over the base flashing. The counter flashing should be cut back into the brick veneer to create a positive seal over the base flashing. The roof/brick veneer intersections were not flashed in this manner. The base flashing appeared to extend behind the brick veneer and the installed counter flashing has no apparent function. Additionally, mastic application at various points indicates improper repair methods to correct possible leak conditions and/or defective flashing. A roofing contractor should be retained for further evaluation and remedial action.



- ◆ Any debris (i.e. leaves, needles, etc.) on the roof should be removed. This debris will hold moisture and can cause damage. Any hidden damage should be repaired.



**Limitations of Roof Inspection**

All roofs will require periodic inspection, ongoing maintenance and repair. Roofing life expectancies can vary depending on several factors. This assessment of the roof does not preclude the possibility of leakage. Leakage can develop at any time and may depend on rain intensity, wind direction, etc. Unless specifically stated, opinions of the following are not included: remaining service life of the roof; manufacturers material defects; fastener appropriateness, installation in accordance with

manufacturers installation specifications and prior hail activity. Inspection of the roofing system was limited by (but not restricted to) the following conditions:

- Most of the flashing is under the shingles or behind the exterior wall covering and its condition and proper installation cannot be fully verified.
- This inspection does not include the insurability of the roof.

**I NI NP R**

**D. Roof Structure and Attic** (If the attic is inaccessible, report the method used to inspect.)

*Comments:* The attic was entered from the 2<sup>nd</sup> story hall access. The roof support structure utilized rafters, ceiling joists, purlins and struts at various spacing. The rafters revealed no apparent damage. Various rafters were reinforced with collar beams. Collar beams are ties between rafters on opposite sides of the roof and they stiffen the roof and help hold the rafters and ridge together.

Most roof structures exhibit framing that does not follow industry standards exactly. Since these structures are constructed with a number of redundant wood members, minor variations in assembly, spacing and flatness can be tolerated. Observation of the roof planes revealed no significant sagging. *NOTE: This is not a code or design specification inspection and no comment is made with respect to the adherence to span, material grades, nailing, bracing, or other miscellaneous specification schedules.*

As seen from the attic, the roof sheathing is oriented-strand board (OSB). This type of roof sheathing is made of specifically sized wood pieces, coated with a special resin binder, arranged into layers for maximum strength and stability and then bonded under extreme heat and pressure. OSB generally costs less than comparable size and grade of plywood roof sheathing, but is an acceptable material for roof decking. Where visible, the underside of the roof revealed no evidence of water penetration or damage.

The roof decking was provided with alignment clips between the deck joints. Alignment clips are used to provide separation between the sheets of roof decking.

Ventilation of the attic was provided by lower level soffit vents and upper level ridge vents. It is important to maintain adequate attic ventilation year round to help prevent condensation problems and to reduce the attic heat load.

The visible attic insulation is primarily a loose fill type and approximately 10” - 12”+ was observed in the attic. *NOTE: No determination of material was made. Additionally, wall insulation type and quantity could not be determined.*

**Deficiencies:**

- ◆ Various rafters appeared to be poorly cut and were separated from the ridge board. This repair can be performed by nailing a supporting rafter to the existing rafter forming a tight fit at the ridge. The supporting rafter should be the same width as the existing rafter and should be mitered at the end.



- ◆ Various hip jack(s) were poorly cut/angled and not properly fitted to the hip rafter(s). This repair can be performed by nailing a supporting member to the existing hip jack(s) forming a tight fit at the hip rafter(s). The supporting members should be the same width as the existing jack rafters and should be mitered at the end.



- ◆ Fire blocking was not provided at two duct chases (west side of the water heater and near the 1<sup>st</sup> story HVAC system). Fire blocking is needed to cut off these draft openings and to form a fire barrier.



- ◆ There was no apparent upper level attic ventilation above the garage. Upper level vents are important as they provide an outflow of air. Generally, 50% of the ventilation should be at the upper levels with the balance at the eave (soffits). It is recommended that proper attic ventilation be provided so that air circulates freely under the roof deck and carries away water vapor before it can condense.

Limitations of Attic Inspection

- There were inaccessible attic spaces due to reduced clearance or obstruction by structural members.
- Insulation covered some structural components in the attic.
- The entire underside of the roof sheathing was not visible.
- Insulation R-values were not determined.

**I NI NP R**

**E. Walls (Interior and Exterior)**

*Comments:* The interior walls are covered primarily with gypsum board. The walls were reasonably plumb and revealed no evidence of water penetration. There was no evidence of moisture intrusion at the window and door openings.

The exterior walls were covered with brick veneer and siding. The siding appeared to be a cement fiber material which may provide a higher level of performance when compared to wood or compressed fiber board siding materials. Overall the exterior wall covering, trim and eave components were in satisfactory condition, the exceptions are noted below.

Vertical expansion joints were formed within the brick veneer. Expansion joints are used to divide brick veneer into sections to minimize cracking. The expansion joints were sealed at this time and should be kept sealed with a flexible exterior grade material.

Weep holes are openings placed in the brick veneer mortar joints at the level of any flashing such as window/door lintels and at the 1<sup>st</sup> course of bricks in order to permit the escape of moisture. The lack of weep holes above metal lintels may contribute to lintel corrosion and the lack of weep holes at the 1<sup>st</sup> course of bricks over the foundation brick ledge may contribute to interior water intrusion at the floor level. Mortar droppings behind the veneer wall may restrict air flow and water drainage. Lower level weep holes were provided at the 1<sup>st</sup> course of bricks and above the lintels.

**Deficiencies:**

- ◆ The siding/trim boards were not caulked at various points (i.e. chimney, northeast end, etc.). These areas should be caulked to prevent moisture intrusion.



**Limitations of Interior/Exterior Wall Inspection**

Assessing the quality and condition of interior/exterior finishes is highly subjective. Issues such as cleanliness, cosmetic flaws, quality of materials, architectural appeal and color are outside the scope of this inspection. Comments will be general, except where functional concerns exist. No comment is offered on the extent of cosmetic repairs that may be needed after removal of existing wall hangings and furniture. The inspection of the walls was limited by (but not restricted to) the following conditions:

- The condition of hidden wood structural members in the wall cavities or in areas not readily observable to the inspector is unknown. No access was gained to the wall cavities.
- Flashing(s) behind the exterior wall covering, windows and doors and their condition and proper installation cannot be fully verified.

**I NI NP R**

**F. Ceilings and Floors**

*Comments:* The interior ceilings are covered primarily with gypsum board. The ceilings revealed no apparent distortion or evidence of water penetration.

The 1<sup>st</sup> story slab surface and 2<sup>nd</sup> story sub floor were mostly hidden by floor covering (i.e. carpet, tile, etc.). It is not uncommon for floor slabs to experience some cracking. After walking the 1<sup>st</sup> story floors, I perceived no significant unlevelness. The 2<sup>nd</sup> story floors were walked and revealed no noticeable unlevelness.

**Limitations of Ceiling/Floor Inspection**

Assessing the quality and condition of interior finishes is highly subjective. Issues such as cleanliness, cosmetic flaws, quality of materials, architectural appeal and color are outside the scope of this inspection. Comments will be general, except

where functional concerns exist. No comment is offered on the extent of cosmetic repairs that may be needed after removal of existing furniture. The Inspection of the ceilings/floors was limited by (but not restricted to) the following conditions:

- The condition of hidden wood structural members in the ceiling cavities or in areas not readily observable to the inspector is unknown.
- Conditions below the floor covering (i.e. carpet, etc.) is unknown.
- Except as noted above, no other comment is made on the condition of the floor covering (i.e. carpet, tile, wood, etc.).

**I NI NP R**

**G. Doors (Interior and Exterior)**

*Comments:* For the most part the interior and exterior doors opened and closed freely, the exception is noted below. The garage overhead door is a metal type and was operable.

*NOTE: The door locks were not evaluated. It is suggested that the locks on all exterior entrances be changed for improved security.*

**Deficiencies:**

- ◆ The northeast bedroom door was not latching. Adjustments may be desired.
- ◆ The master bathroom double door lock was not latching. Adjustments may be desired.
- ◆ The rear exterior door was rubbing. Adjustments may be desired. Additionally, the blinds between the window panes were inoperative.

**I NI NP R**

**H. Windows**

*Comments:* The window frames are a metal type with single pane glass. The readily accessible windows were examined and were operable with no visible damage to the glass. The installed window screens revealed no damage.

**Deficiencies:**

- ◆ One window lock did not latch properly in the front left bedroom.

**I NI NP R**

**I. Fireplace/Chimney**

*Comments:* This dwelling has a metal type fireplace. The firebox walls revealed no visible discrepancies. The damper was operable. The gas log lighter was operable. A plainly distinguishable hearth extension was provided. The attic penetration of the chimney flue was provided with a sheet metal fire stop. The metal chimney chase flashing was intact. A chimney spark arrester was provided.

**Deficiencies:**

- ◆ This fireplace has gas logs and the damper should be permanently blocked open to prevent spillage of combustion products into the room. The damper for this fireplace was not provided with a mechanical damper stop.
- ◆ The buildup of soot in the firebox and flue indicate the need for a thorough cleaning of the fireplace and chimney.

**Limitations of Fireplace/Chimney Inspection**

The Inspection of the fireplace/chimney was limited by (but not restricted to) the following conditions:

- The adequacy of chimney draw cannot be assessed during a visual inspection.
- The presence of sufficient “fire stopping” (where the chimney extends through the building, for example) behind interior finishes and in the attic is not possible to predict.
- Smoke leakage and clearance of combustibles in concealed areas are not considered part of this inspection.

- The overall condition of the flue will not be determined. We are unable to view the flue lining for cracks, holes or other damage/deterioration.

**I NI NP R**

**J. Porches, Decks and Carports (Attached)**

*Comments:* The patio, walkway and driveway are concrete. The porch surface is brick. These surfaces were satisfactory.

**I NI NP R**

**K. Other**

*Comments:* The stairway felt reasonably sturdy, hand/guard railing was provided and anchored.

The attic stairway load rating is listed as 250 lbs. *NOTE: Nuts and bolts should be checked periodically to ensure tightness.*

**NOTE: I did not perform tests to determine the presence of mold or conditions which may provide harborage or sustenance for mold. If this is a concern, you should consider contacting a competent specialist for identification and testing.**

**Deficiencies:**

- ◆ The attic stairway does not seal properly at the ceiling. Adjustments may be desired.
- ◆ The attic stair assembly did not appear to be adequately mounted. Ideally, 16d nails and/or 3” lag screws should be used for installation on a fastening pattern described by the stair manufacturer. Usually, the stair jamb is fastened to the ceiling joists on all four sides.
- ◆ The attic stairway revealed loose nuts/bolts at various points.

**II. ELECTRICAL SYSTEMS**

**I NI NP R**

**A. Service Entrance and Panels**

*Comments:* The visible and accessible portions of the service entrance and panel box(s) were examined. Evaluation of the service capacity and adequacy of wiring is not included.

**SERVICE ENTRANCE WIRE:** Underground

**BREAKER BOX LOCATION:** Outside, rear

**SERVICE TO PANEL WIRE:** 1/0 Aluminum

**OVERCURRENT PROTECTION DEVICES:** Breakers

**MAIN DISCONNECT:** Rated 125 amps

The breaker panel was covered and reasonably secure. The interior of the breaker panel showed no sign of moisture intrusion. The wire connections within the breaker panel showed no sign of arcing or burning. *NOTE: Breakers should be tripped on/off every six months. This helps keep the springs limber and the contacts free of oxides. The inspector did not trip the breakers on/off.*

**Deficiencies:**

- ◆ An inhibitor paste did not appear to be brushed onto the aluminum conductors (entrance wires). The surface of aluminum oxidizes as soon as it is exposed to air resulting in a poor connection; therefore, an inhibitor paste is applied to prevent oxidation. *NOTE: Per TREC standard of practice, inspectors are required to note this deficiency as in need of repair. An electrician can be retained for further evaluation/action.*

- ◆ A double wired breaker (two wires under a single lug) existed at the left side of the panel. Double tapping may not be as firm as single tapping and there may not be sufficient surface contact which can lead to circuit overloading. Since the breaker is not designed for double tapping, an electrician should be retained for remedial action.



- ◆ Some white insulated wires (cooling system) in the breaker box are “hot”. This is a common wiring practice; however, the white insulated “hot” wire(s) should be permanently re-identified to indicate its use, by painting or other effective means at its termination, and at each location where the wire is visible and accessible (i.e. black or red paint/plastic tape may be used to identify these wires as “hot”).

**I NI NP R**

**B. Branch Circuits - Connected Devices and Fixtures** ( Report as in need of repair

the lack of ground fault circuit protection where required.)

*Comments:* The visible and accessible portions of the internal electrical system and readily accessible outlets/switches/fixtures were examined. Adequacy of wiring and routing of circuits is not included. Automatic lighting controls were not inspected.

**PANEL TO STRUCTURE WIRE:** Copper (as seen from the panel)

The outlets are a grounded type. The readily accessible outlets, switches and fixtures were examined, any apparent discrepancies are noted below. The readily accessible outlets were examined with a circuit analyzer (without removing cover plates) and they revealed no wiring discrepancies.

Ground Fault Circuit Interrupter (GFCI) protection was provided and operable in the following areas: bathroom outlets, one kitchen countertop outlet, exterior outlets and the garage wall outlet. GFCI's are sensitive safety devices installed into the electrical system to provide protection against electrical shock. ***GFCI devices should be tested regularly to insure that the mechanism will operate properly if a human being is subjected to an electric shock.***

Typical household circuit breakers or fuses do not respond to early arcing conditions in home wiring. A new electrical safety device for homes, called an arc fault circuit interrupter or AFCI, is expected to provide added fire protection from hidden faulty home wiring conditions. An AFCI functions like a common circuit breaker but also detects arcs that may cause a fire. AFCIs are installed in 15 or 20 amp branch circuits in homes today and are currently available as circuit breakers with built-in AFCI features. AFCIs should not be mistaken with GFCIs (Ground Fault Circuit Interrupters). AFCIs are intended to address fire hazards while GFCIs address shock hazards. As an upgrade, you may wish to retain an electrician for installation of AFCIs. **NOTE: Current standards require AFCI's for receptacle outlets and lights in bedrooms effective January 1, 2002. This dwelling predates the adoption of this standard.**

**NOTE:**

- *The circuits were not examined for proper voltage. While low voltage is somewhat common, if this situation exists it could potentially damage sensitive electronics. If this is a concern, you should retain a licensed electrician for further evaluation.*
- *All light fixtures should be fitted with bulbs rated for their use or there is a risk of overheating. This inspection does not review for proper bulb rating. This should be performed by you prior to move-in.*

**Deficiencies:**

- ◆ Some kitchen countertop outlets were not adequately secured to the wall.
- ◆ Five kitchen countertop outlets (marked with red tags) were not GFCI protected. The GFCI device adjacent to the kitchen range did not trip off when tested with a device that causes a ground fault in the circuit.
- ◆ An electric disconnect was not within sight of the condensing unit. The electric disconnect is for the safety of the HVAC technician who is servicing the unit.

**Limitations of Electrical Inspection**

The inspection does not include low voltage systems, telephone wiring, intercoms, alarm systems, TV cable, timers or smoke detectors. The inspection of the electrical system was limited by (but not restricted to) the following conditions:

- Electrical components concealed behind finished surfaces (walls, ceilings, etc.) and below attic insulation were not inspected.

**III. HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS**

**I NI NP R**

**A. Heating Equipment**

*Comments:* The heat exchangers in newer gas furnaces have few fracture/leakage problems due to an improve design. In addition, the burners in these furnaces are not readily accessible to view; **therefore no comment will be made concerning visual evidence of forced air in the burner compartments.** Exhaust vent sizing for these newer high efficiency furnaces is beyond the scope of this inspection.

***Unit #1: 1<sup>st</sup> Story System***

*Type and Energy Source:* Forced Air - Gas – Consolidated Industries brand, model #MBA 060 NH3R, estimated to be approximately 6 – 7 years old.

The heating system responded to an on/off check. The blower was operable. The vent pipe appeared satisfactory. The induced draft fan was operable. An intermittent ignition pilot was provided.

***Unit #2: 2<sup>nd</sup> Story System***

*Type and Energy Source:* Forced Air - Gas – Consolidated Industries brand, model #MBA 060 NH3R, estimated to be approximately 6 – 7 years old.

The heating system responded to an on/off check. The blower was operable. The vent pipe appeared satisfactory. The induced draft fan was operable. An intermittent ignition pilot was provided.

**Deficiencies:**

- ◆ Unit #1 & #2 - The semi rigid furnace gas tubing entered the cabinets through unprotected knockout openings. For improved safety, a hard pipe should pass through the knockout openings.



Limitations of the Heating System Inspection

The heating system(s) is/are tested by operating the units for a short period of time. The inspection of the heating system(s) is/are general and not technically exhaustive. Like most mechanical components, heating systems can fail at any time. It is suggested that the heating system(s) be tested during any pre-closing walk through. The inspection of the heating system(s) was limited by (but not restricted to) the following conditions:

- The effectiveness, efficiency and overall performance of the systems is outside the scope of this inspection.
- The adequacy of heat distribution is difficult to determine during a one-time inspection.
- An analysis of indoor air quality is beyond the scope of this inspection.
- No comment is made on the condition of the heat exchangers as these systems do not allow examination without dismantlement. If desired, a licensed heating contractor can be retained for a more invasive evaluation.

**I NI NP R**

**B. Cooling Equipment**

*Comments:* Generally, a temperature differential of 18-22 degrees is considered adequate by the refrigeration industry for a normally operating residential unit as measured across the cooling coil. Smaller temperature drops are anticipated from the return air vent and the supply vents.

**Unit #1: 1<sup>st</sup> Story System**

*Type and Energy Source:* The cooling system is a refrigerant/compressor type. The condensing unit is a York brand, model #H1RC036S06E, mfd 0997. The evaporator coil is a Allstyle brand, model #ASLB364422T+D.

The cooling system responded to an on/off check. The temperature differential measured across the evaporator coil was 19° which is within acceptable limits. The evaporator coil was not readily accessible; however, the outer casing was free of notable rust/leakage. The primary and secondary drains were intact. The secondary drain line terminated at the rear roof eave. The safety pan was dry today. The suction line was insulated. The condensing unit operated without excessive noise or vibration. A condensing unit electric disconnect was provided.

**Unit #2: 2<sup>nd</sup> Story System**

*Type and Energy Source:* The cooling system is a refrigerant/compressor type. The condensing unit is a York brand, model #H1RC030S06A, mfd 0398. The evaporator coil is a Allstyle brand, model #ASLB364422T+D.

The cooling system responded to an on/off check. The temperature differential measured across the evaporator coil was 18° which is within acceptable limits. The evaporator coil was not readily accessible; however, the outer casing was free of notable rust/leakage. The primary and secondary drains were intact. The secondary drain line terminated at the rear roof eave. The safety pan was dry today. The suction line was insulated. The condensing unit operated without excessive noise or vibration. A condensing unit electric disconnect was provided.

**NOTE:**

- Panels were not removed from the evaporator coil for inspection. It is recommended that the evaporator coil be inspected and cleaned as required as part of your seasonal maintenance.

- The safety pan(s) should be kept clean.

**Deficiencies:**

- ◆ Unit #1 - The safety pan was rusted. This suggests that the pan has held water in the past and should be closely monitored. The pan should be cleaned and examined further for hidden damage or surface wear.



**Limitations of the Cooling System Inspection**

The cooling system(s) is/are tested by operating the unit(s) for a short period of time. The inspection of the cooling system(s) is/are general and not technically exhaustive. Like most mechanical components, cooling systems can fail at any time. It is suggested that the cooling system(s) be tested during any pre-closing walk through. The inspection of the cooling system(s) was limited by (but not restricted to) the following conditions:

- The effectiveness, efficiency and overall performance of the systems is outside the scope of this inspection.
- The adequacy of cool air distribution is difficult to determine during a one-time inspection.
- An analysis of indoor air quality is beyond the scope of this inspection.
- The secondary drain pan and drain line were not functionally tested with water due to the possibility of causing water damage.
- System sizing is not included within the scope of this inspection. If desired, an HVAC contractor can be retained to perform a heat load calculation.

**I NI NP R**

**C. Ducts and Vents**

*Comments:* The visible ducts are a flex type. Flex ducting is prone to air flow restriction as the ducts can be pinched at turns or hangers.

The furnace vent pipes appeared satisfactory. The furnace induced draft fans were operable.

**Deficiencies:**

- ◆ Various ducts (in the attic) were reduced in diameter (i.e. crimps, sagging, strapping, sharp bends, etc.) which can restrict air flow. Flex ducts should be supported at intervals no greater than 4'. The maximum permissible sag is 1/2" per foot of spacing between supports. An HVAC contractor can be retained for remedial action.



- ◆ A duct adjacent to the water heater was torn and leaking air into the attic.



Limitations of Duct / Vent / Flue Inspection

The inspection of the duct, vents and flues was limited by (but not restricted to) the following conditions:

- The adequacy of cool air and/or heat distribution is difficult to determine during a one-time inspection.
- Proper balance of conditioned air was not determined.
- Determining the presence of dirt, dust, mold or fungus within the air duct system is beyond the scope of this inspection. If desired, an HVAC contractor can be retained to examine the ducts for cleanliness.

**IV. PLUMBING SYSTEM**

**I NI NP R**

**A. Water Supply System and Fixtures**

*Comments:* The visible piping, faucet(s), sink(s) and tub/shower(s) were examined using the normal controls. The functional water flow was examined where possible noting any visible leakage or evidence thereof. The toilet(s) were examined for damage and firm bolting to the floor(s).

**VISIBLE SUPPLY PIPE MATERIAL:** Copper

**MAIN WATER SHUT-OFF VALVE LOCATION:** Garage, right wall

**NUMBER OF BATHROOM(S):** 2 ½

The water pressure supplied to the fixtures appeared reasonably sufficient. No significant drop in water flow was experienced when two fixtures were operated simultaneously.

The bathtub/shower walls revealed no sponginess.

Gypsum board is commonly used as an underlayment for tiled shower enclosures. Gypsum board is not water resistant and is prone to failure if moisture penetrates the tiled surface. Ideally, the gypsum board should have an

extra barrier of protection such as cement based backerboards. The backerboard would be installed between the tile and gypsum boards. Due to the limitations of this inspection, it is unknown if a cement based backerboard was installed. At this time, the tiles were reasonably secure.

The master bathroom shower stall had a solid base. No sign of leakage was visible to the adjacent walls or ceiling below.

The toilets drained sufficiently at this time. While the toilet bowl and tank will generally last for many years, the working parts inside the tank will not as they are constantly in contact with water. When water runs continuously into the bowl or the toilet fails to flush completely, the problem can usually be traced to the working parts within the tank.

**Deficiencies:**

- ◆ Master Bathroom - The toilet bowl was loose at the floor and should be reinstalled using a new seal.
- ◆ 2<sup>nd</sup> Story Hall Bathroom - The toilet bowl was loose at the floor and should be reinstalled using a new seal.
- ◆ Exterior Faucets - To reduce the risk of contamination of supply water, installation of vacuum breakers (for back siphonage) on the exterior hose bibs would be wise. The lack of vacuum breakers can allow non-potable water or other contaminants to be drawn into the water supply in the event of a drop in water pressure.

Limitations of Water Supply System and Fixtures

The inspection of the water supply system and fixtures was limited by (but not restricted to) the following conditions:

- Sewer or septic systems, buried water lines, well or pump systems, water filters or water softeners are not within the scope of this inspection.
- Portions of the plumbing system concealed by finishes (behind walls, below floors, etc.) were not inspected.
- Water quality is not tested.
- The washing machine and/or refrigerator faucets, if provided, were not tested.
- The water shut off valves (main, below the sinks, toilets, etc) were not tested. These valves may be seldom used and could leak or break when operated.

I NI NP R

**B. Drains, Wastes, Vents**

*Comments:* The functional drainage was examined where possible noting any visible leakage or evidence thereof. Overall, the drainage appeared sufficient.

**VISIBLE WASTE WATER AND VENT LINE MATERIAL:** PVC (Polyvinyl Chloride) Plastic

**MAIN CLEANOUT LOCATION:** Left side of the driveway

Limitations of Drains, Wastes, Vents

The inspection of the drains, wastes, vents, was limited by (but not restricted to) the following conditions:

- Sewer or septic systems and buried drain lines are not within the scope of this inspection.
- Portions of the drain, waste and vent system concealed by finishes (behind walls, below floors, etc.) were not inspected.
- Hidden defects could exist that are not apparent during this inspection and could only become evident during normal use of the plumbing system while occupied.
- The drain to the washing machine was not examined as part of this inspection.

I NI NP R

**C. Water Heating Equipment** (Report as in need of repair those conditions specifically

listed as recognized hazards by TREC rules.)

NUMBER OF WATER HEATERS: 1

BRAND: State

LOCATION: Attic

ENERGY SOURCE: Gas

CAPACITY: 40 gallon

Comments: The water heater was operable and estimated to be approximately 6 years old. There was no evidence of leakage from the tank or visible piping. The safety pan was intact. The safety relief valve and safety pan drain pipes were intact and terminated outside at the right exterior wall, lower level. The exhaust pipe was intact and appeared satisfactory.

**NOTE:**

- Water heated to a temperature which will satisfy clothes washing, dish washing and other sanitizing needs can be scalding. In addition to using the lowest possible temperature setting that satisfies your hot water needs, some type of tempering device should be used for the tub and shower faucets to limit water temperature to 120°F. I did not measure the water temperatures.
- The safety pan should be kept clean.

**Deficiencies:**

- ◆ Corrosion existed at the water heater hot water line which is an early indication of problems (i.e. leakage) developing.



- ◆ The water heater safety relief valve drain pipe was not provided with positive gravity flow, which will result in water standing on the operating mechanism of the valve, causing corrosion and possible failure of the valve.
- ◆ The water heater safety relief valve drain pipe was PVC which is not intended for this use. This material may not withstand the listed discharge temperature and pressure that occurs when the valve opens during emergency conditions.

I NI NP R

**D. Hydro-Therapy Equipment**

**V. APPLIANCES**

I NI NP R

**A. Dishwasher**

Comments:

Brand: GE

Operable. The dishwasher completed a normal wash cycle and no leakage was visible.

I NI NP R

**B. Food Waste Disposer**

Comments:

Brand: Whirlaway

Operable. No leakage was visible from the housing and/or attached drain hose.

I NI NP R

**C. Range Hood**

Comments:

Brand: GE

Operable; Upflow type. The exhaust terminates outside, adjacent exterior wall.

I NI NP R

**D. Ranges/Ovens/Cooktops**

Comments:

Range Brand: GE

The cooktop is a gas type with an intermittent pilot, the burners were operable.

The oven is a gas type with an intermittent pilot, the burners were operable. Oven Temperature

Differential: 0° when set at 350°.

Clock: Operable; The accuracy of the clock/timer was not determined.

NOTE: The self cleaning cycle was not inspected.

I NI NP R

**E. Microwave Cooking Equipment**

Comments:

Brand: GE

Operable

Note: The unit was not examined for radiation leaks.

I NI NP R

**F. Trash Compactor**

I NI NP R

**G. Bathroom Exhaust Fans and/or Heaters**

Comments:

The installed exhaust fans were operable.

I NI NP R

**H. Whole House Vacuum Systems**

I NI NP R

**I. Garage Door Operators**

Comments:

The automatic door opener has electronic sensing devices mounted near the garage floor. During the closing cycle, an interruption of the signal between the “eyes” causes the door opener to reverse. The reverse feature on the overhead garage door opener responded properly to testing. These are important safety feature that should be tested regularly. Refer to the owner’s manual or contact the manufacturer for more information. The remote controls were not checked.

**Deficiencies:**

- ◆ The contact obstruction sensing feature on the overhead garage door opener did not respond properly to testing indicating the need for repair. This is an important safety feature that should be tested regularly.
- ◆ The garage overhead door lock should be disabled or removed when using the automatic door opener.

I NI NP R

**J. Door Bell and Chimes**

Comments:

Operable

I NI NP R

**K. Dryer Vents**

Comments:

Termination of the dryer exhaust was not determined. It may terminate outside at the right wall. The dryer exhaust may extend upward. Dryer exhausts may not perform well in this configuration. Please note that I was unable to determine the overall effectiveness of the dryer exhaust and regular cleaning should be anticipated. *NOTE: If the dryer exhaust performs poorly, a booster fan designed for dryer use should be considered.*

Limitations of Appliance Inspection

Appliances are tested by turning them on for a short period of time. It is suggested that appliances be tested during any pre-closing walk through. Like any mechanical device, appliances can malfunction at any time (including the day after taking possession of the house). The inspection of the appliances was limited by (but not restricted to) the following conditions:

- Thermostats, timers and other specialized features and controls are not tested.
- The effectiveness, efficiency and overall performance of appliances is outside the scope of this inspection.
- **I am unable to predict with certainty when replacement of any appliance will be needed.**

**VI. OPTIONAL SYSTEMS**

I NI NP R

**A. Gas Lines**

Comments: The gas lines were not inspected. For a complete check of the gas supply system, the gas company or a plumber should be contacted.

I NI NP R

**B. Security Systems**

Comments: The security system was not inspected. I recommend that you verify that this system is to remain as part of this home sale, then have the equipment evaluated by a specialist to determine its present condition.

I NI NP R

**C. Fire Protection Equipment**

Comments: Any built-in security and/or fire protection equipment are not inspected. *Current* standards require smoke detectors outside each separate sleeping area and on each level of the living unit. Also, smoke detectors are required in each sleeping room. Current standards require that the alarm system should have two independent power sources and all detectors be interconnected so that when one detector activates, all detectors sound the alarm. Smoke detectors will require annual functional testing and periodic sensitivity testing. Testing and maintenance of the smoke detector system is the responsibility of the property owner.

**CONDITIONS AND LIMITATIONS**

This inspection report expresses the personal opinion of the inspector and is based on the minimum inspection standards set forth by The Texas Real Estate Commission. The purpose of this inspection is to provide an opinion on whether or not the items listed in this report were functional or are in need of repair. The scope of this inspection is limited to the present condition of visual items only and does not include the disassembly of any property or the removal of any object including, but not limited to, furniture, siding or panels that may be obscuring the inspector's visual observation. This inspection does not cover items or conditions that may be discovered only by invasive methods. This inspection is not intended to be technically exhaustive nor is it intended to reveal all existing or potential defects. Rather, it is intended to reflect a careful but limited visual

inspection. The information in this report can reduce, but not eliminate the risks associated with the purchase of this structure. Should you desire a more detailed inspection of any area, please refer to licensed and/or qualified specialists.

### THE FOLLOWING IS NOT WITHIN THE SCOPE OF THIS INSPECTION :

- 1) Past or present violations of codes, ordinances or manufacturer's installation instructions.
- 2) Geological stability or ground condition of site.
- 3) Determination of absolute structural integrity. This is not possible without an invasive/destructive evaluation.
- 4) Determination that all safety hazards have been identified.
- 5) Termites, wood destroying insects and/or structural parasite damage. The Inspector is not a licensed member of the Texas Structural Pest Control Board and is not qualified or permitted by law to identify a present or previous infestation of termites or other wood destroying organisms, or identify termite damage or other damage resulting from an infestation of any wood destroying organism. Identifying the presence of such damage is excluded from this inspection and report, including damage which may be revealed in the course of repair, remodeling or replacement work. A termite inspection of the premises should be performed by a Structural Pest Control Board licensee. If the house has been infested by termites or other wood destroying insects, then it can be assumed that some degree of damage is present. The extent of any such damage can only be known by removing wall coverings in suspected areas. The decision to undertake any invasive or destructive inspection is left to the parties of the transaction and not the inspector.
- 6) Possible presence of or danger from any potentially harmful substances, pollutants, contaminants and environmental hazards, including but not limited to radon gas, lead paint, lead in water, asbestos, mercury, urea formaldehyde, electro-magnetic fields, noise, odor and toxic or flammable chemicals. The inspector is also not responsible for the determination of conditions which may provide harborage or sustenance for bacterial, mold and fungi, the presence of dirt, dust and other air-borne particles. The Client is urged to contact a competent specialist if identification, information and testing of the above is desired.
- 7) Values of or estimate of repairs on property. We are not a repair company and are prohibited by a provision of The Real Estate License Act from performing repairs on properties that we inspect. It is recommended that the appropriate qualified craftsmen be contacted for firm bids to perform desired repairs.
- 8) No determination will be made on the operational capacity, quality, and/or suitability for a particular use of the items inspected.
- 9) Manufacturer's recalled items. For information on recalled items you can call the US Consumer Product Safety Commission at 800-638-2772 or visit its Web site, [www.cpsc.gov](http://www.cpsc.gov).

Since all elements undergo a constant rate of change and deterioration, no prediction of future conditions can be made. This report should not be considered as a warranty or guarantee of the adequacy, performance or useful life of any item, component or system.

This inspection and report were prepared for your exclusive use. Use of this report by, or liability to third parties, present or future owners and subsequent buyers is specifically excluded. Reliance on this report by third parties, present or future owners and subsequent owners is at their risk. No warranty or guaranty to third parties, present or future owners and subsequent owners is implied nor should be assumed.

**PHOTOS:** The pictures in this report are not intended to represent all conditions present. They are a representation of circumstances visible but not limited to the specific photo. There may be other similar repairs that need to be made.

**HOME SERVICE WARRANTIES:** These warranty services are very popular but they may have restrictions under which a claim is paid. Minor deviations from the manufacturer's installation instructions, that are not normally revealed in a general inspection, may be cause for denial of a claim. Do not expect these warranty

services to cover all of your problems, particularly with aging systems. Refer to the respective warranty documents for coverage limitations.

**This inspection report is not intended for home warranty or insurance underwriting purposes. Home warranty companies should provide their own inspections that meet their underwriting standards, prior to issuing any warranty policy.**

EDITING ERRORS - REPORT INTERPRETATION: This report was prepared on a computer and infrequently a word or part of a sentence may be accidentally deleted or altered. Should you encounter such a condition, please contact me as soon as possible to make the necessary correction and provide you with a replacement page(s). If you do not understand certain comments or recommendations for corrective action, **call me prior to closing the transaction for clarification.**

**CLARIFICATION OF TERMS**

**I NI NP R**

     **Inspected:** The accessible items, parts, systems or components were examined without laboratory, scientific or engineering evaluation or testing, destructive tests or the dismantling or removal of parts, members or components. An item or system with cosmetic and/or minor damage not affecting the use of the item or system may be classified as “inspected”. Unless specified, the following is undetermined: remaining life expectancy, compliance to code, insurability of item, or that the property is free of unsafe conditions.

**I NI NP R**

     **Not Inspected:** The item was present but not inspected.

**I NI NP R**

     **Not Present:** The item was not present or was not discovered by the inspector.

**I NI NP R**

     **Not Functioning or In Need of Repair:** The item or system is not functioning and needs repair and/or is in need of further evaluation by a qualified specialist and/or presents a safety hazard. *The level of repair priority is hereby left to you. Any repairs or further evaluations should be performed by qualified service companies. It is recommended that the appropriate qualified craftsmen be contacted for firm bids to perform desired repairs prior to closing.*