

"A wise man builds his house upon the Rock" Mat. 7:24

2992 Howell's Ferry Rd., Hickory Grove, SC Tel: 803-925-1502 / Fax: 803-925-2853 / Mobile: 704-351-8989 www.aohomeinspection.com / jfunderburk@aohomeinspection.com

SC License #: 1736 / NC License #: 2240 / NACHI #: NACHI05120170

Confidential Inspection Report

Property Address: 634 Anystreet MyTown SC



This report is not transferable. It is the exclusive property of Alpha & Omega Home Inspections, LLC and the clients whose names appear herewith. Its use by any unauthorized persons is strictly prohibited, and agents are specifically cautioned against providing it to any unauthorized third party.

The World's Elite Inspectors CMI De hunden buck fr National Association of **Certified Master** NACI INSPECTOR **Certified Home Inspectors**

Date: 5/12/2010	Time: 04:40 PM	Report ID: Sample Report - 75 YO Home
Property: 634 Anystreet MyTown SC	Customer:	Real Estate Professional:

Any locations given, such as "left front", are oriented as if looking at the house from the front yard.

This is an actual report for a real client performed on a 75 year old house in 2010. All identifying information has been removed, including the cover page photo which is for illustration purposes only. This is not the full report! Some of the informational items have been excluded for the sake of making the report smaller while trying to give you a 'big picture' overview. This report is the exclusive property of Alpha & Omega Home Inspections, LLC and may not be copied or reproduced in any manner without our written consent.



Styles & Materials

		IN	N	NP	RR	Styles & Materials Siding Material:
1.0	GRADING, DRAINAGE & VEGETATION				Х	Wood
1.1	DRIVEWAYS & WALKWAYS	Х				Trim Material: Wood trim
1.2	TRIM	Х				Door Material:
1.3	SIDING / WALL COVERINGS				Х	Wood Metal clad
1.4	EAVES, SOFFITS AND FASCIAS	Х				Storm door
1.5	STEPS & HANDRAILS	Х				Window Type: Metal single-glazed (not ene
1.6	PAINT				Х	efficient) Storm windows
1.7	WINDOWS	Х				Appurtenance:
1.8	DOORS (Exterior)				Х	Covered porch Deck
1.9	STORM WINDOWS & DOORS				Driveway:	
1.10	SCREENS				Х	Concrete Gravel
1.11	PORCHES				Х	
1.12	DECKS, PATIOS, AND BALCONIES				Х	
1.13	CHIMNEY	Х				
1.14	HOUSE ADDITIONS OR ALTERATIONS			Х		
1.15	ADDITIONAL STRUCTURES ON PROPERTY		X			

IN NI NP RR

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate **Comments:**

1.0 (1) There are tree limbs overhanging the residence that should be trimmed or monitored to insure that they do not impact or damage the roof or its components. More about the hazards of trees close to the home can be read at <u>our website</u>.

(2) Moisture intrusion is a perennial problem with which you should be aware. It involves a host of interrelated factors, and can be unpredictable, intermittent, or constant. When moisture intrusion is not self evident, it can be inferred by musty odors, peeling paint or plaster, efflorescence, or salt crystal formations, rust on metal components, and wood rot. However, condensation and humidity can produce similar conditions if the temperature in an area is not maintained above the dew point. Regardless, if the interior floors of a residence are at the same elevation or lower than the exterior grade we could not rule out the potential for moisture intrusion and would not endorse any such areas. Nevertheless, if such conditions do exist, or if you or any member of your family suffers from allergies or asthma, you should schedule a specialist inspection.

Water can be destructive and foster conditions that are deleterious to health. For this reason, the ideal property will have soils that slope away from the residence a minimum of 6 inches within the first 10 feet and the interior floors will be several inches higher than the exterior grade. Also, the residence will have roof gutters and downspouts that discharge into area drains with catch basins that carry water away to hard surfaces. (However, we do not inspect and cannot guarantee the condition of any underground drainage system.) If a property does not meet this ideal, or if any portion of the interior floor is below the exterior grade, we cannot endorse it and recommend that you consult with a grading and drainage contractor, even though there may not be any evidence of moisture intrusion. The sellers or occupants will obviously have a more intimate knowledge of the site than we could possible hope to have during our limited visit, however we have confirmed moisture intrusion in residences when it was raining that would not have been apparent otherwise. Also, in conjunction with the cellulose material found in most modern homes, moisture can facilitate the growth of biological organisms that

can compromise building materials and produce mold-like substances that can have an adverse affect on health. For the above reasons, we recommend that you view the property during a period of prolonged or heavy rain prior to close of escrow.

(3) Grading and drainage is either negative or neutral adjacent to the residence, and moisture intrusion will remain a possibility. The soil or the hard surfaces should slope away from the residence to a distance of at least six feet to keep moisture away from the footings. We can elaborate on this issue, but you should seek a second opinion from a grading and drainage contractor prior to close of escrow. At a minimum, you should observe the crawl space conditions prior to the close of escrow during a period of heavy or prolonged rain.

1.1 There are predictable cracks in the walkway that would not necessarily need to be serviced. However, sealing cracks is generally recommend to prevent them from widening during freeze-thaw cycles.

1.3 One area(s) of the wall siding were not adequately sealed at butt end joints and where it meets the house trim. A thorough review of the siding by a licensed contractor and service to seal the openings is recommended. Failure to seal the joints may result in long-term deterioration of the siding or sheathing behind it.



1.6 Sections of the house siding and eaves need paint at many areas. Bare wood was exposed to the elements and it may deteriorate if paint is not applied.

1.8 (1) The exterior door keyed deadbolt locks could prevent or impede an emergency exit, and should be replaced with a safer latch type.

(2) We could not confirm that the glass in main entry exterior doors is safety glazing. According to today's commonly accepted construction standards, safety glazing is required in such locations. Upgrading the glass to safety gazing is recommended for safety reasons.

(3) The rear entry door hinge was missing screws and needs service.

1.9 (1) The functionality of the storm windows was not tested. FYI.

(2) A storm door has a small crack in the glass at the front right bedroom.

1.10 Two or more of the window screens were not installed. Screens are often removed for aesthetic reasons, but you may wish to have them installed or inquire with the owner about their location.

1.11 (1) A front porch post or column is loose or not secured and should be serviced.

(2) Sections of the tile at the front porch are in poor condition and should be replaced by a specialist.



1.12 (1) The rear deck guardrail balusters do not conform to today's commonly accepted construction standards. The pickets should be spaced no more than four inches apart for child safety, and that is what we recommend if small children will be present.



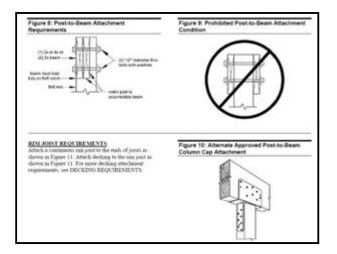
(2) There are components of the rear deck that are structurally unsound. We can elaborate on this issue, but the entire rear deck should be evaluated by a competent and licensed contractor and serviced accordingly.

The wood deck has atypical footings, spans, connections or rails, and could have been built without the benefit of a permit. We can elaborate on this issue, but you should request the permit from the sellers or have a specialist evaluate it.









(3) A baluster or picket is loose at the rear deck guard rail or stair rail and should be serviced for safety reasons.

(4) The rear deck needs maintenance-type service such as sanding, pressure washing, sealing or painting, which will prolong the life of the structure.



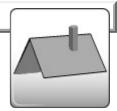
(5) The flashing for the rear deck was not visible. The potential for water to penetrate behind the deck ledger and siding may exist. We suggest that you have the deck installation method evaluated by a licensed general contractor.

1.15 An outbuilding on the property was not inspected. Our company makes no representation to the condition of these structures or building(s).

A fence on the property was not inspected. Our company makes no representation to the condition of this structure.

A detached garage or carport was not inspected.

2. Roofing, Guttering & Other Roof Components



		IN	NI	NP	RR
2.0	ROOF COVERINGS				Х
2.1	VISIBLE FLASHINGS	Х			
2.2	SKYLIGHTS			Х	
2.3	ROOF PENETRATIONS	Х			
2.4	FIREPLACE CHIMNEYS	Х			
2.5	GUTTERS & DOWNSPOUTS				Х
		IN	NI	NP	RR

N NI NP RR Styles & Materials

Roof-Type: Gable

Roof Covering: 3-Tab fiberglass

Rubber membrane

Estimatd number of shingle layers: One

Roof sheathing: Wood planks

Method of roof observation: From within the attic Binoculars from the ground Ladder at eave

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate

Comments:

2.0 (1) The roof design is one that is suspectible to leaks. Water, snow, ice, tree debris may accumulate in this wide, nearly flat valley. FYI.



(2) The roof sheathing consists of 'skip planks'. The original cedar shakes are still installed. There was no plywood or OSB visible. On the next re-roof, the cedar shakes may have to be completely replaced with OSB, which will greatly increase the cost. You are advised to have the roof evaluated by a competent roofing contractor prior to the close of escrow because the cost of a re-roof may affect your evaluation of the property.



(3) Lichen or other types of organic growth were observed on roof shingles. We recommend killing the growth with copper sulfate or other approved chemicals to prevent damage to the shingles.

(4) The roof is in a stage of serious decomposition (loss of shingle granules, etc.), which means that the roof is susceptible to leaks. It is at the end of its serviceable life in our opinion. We recommend an evaluation of the roof by a competent roofing contractor before the close of escrow because the cost of replacement may affect your valuation of the property.



(5) A roof leak (or gutter overflow) at the front of the home, left of the porch, has caused damage to the roof sheathing. Service by a competent roofing contractor is recommended.



2.5 (1) We did not verify the functionality of the underground drains, provided for the gutters.

(2) The gutters and/or downspouts need to be cleaned and serviced to drain properly. The debris in gutters can also conceal rust, deterioration or leaks that are not visible until cleaned. Left unaddressed, clogged gutters will allow water to penetrate unintended areas and may result in decay to wood structures behind the gutters.

3. Electrical System

$\left[\right]$	ılı.	٦
	Ū	
		J

		IN	NI	NP	RR
3.0	INCOMING SERVICE	Х			
3.1	MAIN PANEL				Х
3.2	SUB-PANELS			Х	
3.3	OVER-CURRENT PROTECTION				Х
3.4	MAIN & BRANCH CIRCUITS				Х
3.5	GROUNDING CABLE	Х			
3.6	FIXTURES & OUTLETS				Х
3.7	GROUND-FAULT-CIRCUIT INTERRUPTER (GFCI)				Х
3.8	SMOKE ALARMS	Х			
3.9	OTHER				Х

IN NI NP RR

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate

I NP RR Styles & Materials

Electrical Service Conductors: Overhead service Aluminum

Grounding Method:

To a driven rod At the meter

Visible branch wire 15 and 20 AMP: Copper

Wiring Type:

Modern non-metallic sheathed cable Early non-metallic sheathed cable (Circa 1960s)

Knob and Tube **Over-current protection:**

Circuit breakers

Main Panel Location: Exterior, rear

Main Panel Manufacturer: Square-D

Panel Estimated Capacity & Voltage: 200 AMP 120 / 240 volts

GFCI present at: Kitchen

Outdoors Some bathrooms

Smoke Alarms: One only

Comments:

3.1 (1) Various circuits within the main panel are not labeled, were mis-identified, or the labels were illegible. They should be properly labeled for safety reasons, and so that the appropriate load calculations and breaker sizes can be determined.

(2) The main panel cover would not effectively close so that the unit is water tight. The cover has been modified from the original design. The interior is therefore exposed to moisture. Service or replacement is recommended.



3.3 The electrical system does not include arc-fault circuit interrupters (AFCIs), which effective January 1st, 2002, were mandated by nationally recognized electrical standards to protect 15 and 20 amp branch circuits serving bedrooms. Note that we consider AFCIs an important safety feature and consideration should be given to upgrading the circuits regardless of the regulatory requirements at the time of construction. Note also that the home has been recently re-wired and no AFCIs were installed, which may mean the the installation was performed without the benefit of a permit.

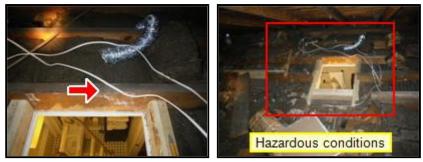
3.4 (1) Non-metallic sheathed cable, within 7 feet of the floor or ground surface at the main entry door, was not protected from damage. Installation in conduit or behind walls is recommended.



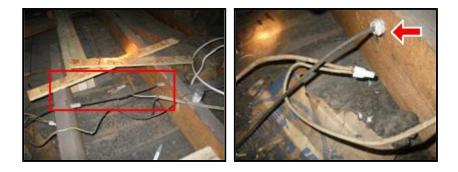
(2) Non-metallic sheathed cable in a kitchen cabinet was not protected from potential damage. Installation in conduit or behind walls is recommended.



(3) There are unprotected electrical conductors within six feet of the attic access. Today's commonly accepted construction standards prohibit this practice and we recommend that they be relocated for safety reasons.



(4) The residence is wired with suspect knob-and-tube wiring, which was commonly installed prior to 1950. It is ungrounded and over time the wire's insulation may become brittle and fall apart or wear thin, resulting in exposed conductors and a risk of shock and/or fire. The hazard is increased by covering it with insulation (we observed this condition at this home), and incorrectly tapping new wiring into it. The wiring should be evaluated by a <u>competent</u>, licensed electrician and certified as being safe or replaced.



(5) Many electrical connection(s) in the attic have been incorrectly made outside of junction boxes, which is a potential fire hazard. All such connections should be made within junction boxes in order to contain any arching or sparking that could occur, a task that should be completed by a licensed electrician.



(6) There is no service disconnect at the electric water heater, which is required unless the unit is within fifty feet and within the line of sight of the electrical panel. A disconnect or breaker capable of being locked open is recommended for safety reasons.

(7) <u>Many</u> wires in the crawlspace has been improperly terminated. Removal or enclosing it in a junction box is recommended. We realize that much of the house has been re-wired, but we cannot determine that all the dangling wires are not capable of being energized by the flipping of a certain switch or breaker. Common practice is to remove old wiring or terminate it properly for safety reasons and to remove all doubt about which systems are potentially live.



(8) In the crawl space, many electric cables dangled overhead. Electric cables are required to be supported overhead every 4.5 feet.



(9) Several electrical connection(s) in the crawlspace have been incorrectly made outside of junction boxes, which is a potential fire hazard. All such connections should be made within junction boxes in order to contain any arching or sparking that could occur, a task that should be completed by a licensed electrician.



(10) <u>Many</u> open electrical junction box(s) were observed in the crawlspace which should be sealed to contain any arcing or sparking that might occur.

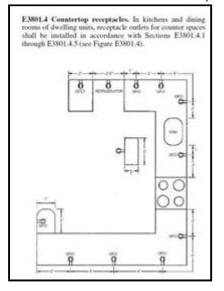


(11) The quality and condition of the electrical work that was recently performed in this house is among the worst we have ever encountered. It is difficult for us to imagine that this work was performed by a licensed electrician. We therefore recommend that a competent and licensed electrician perform a review of the entire house and make repairs as deemed necessary.



3.6 (1) A ceiling light in the dining room needs a 3-way switch in order to function properly from multiple locations.

(2) There are not as many outlets serving the kitchen counters (at the sink area) as would be required by current standards, and you may wish to consult an electrician about the possibility of adding more.



(3) The kitchen light fixture ground wire was fastened in an unorthodox manner. Service to hide or make the wire tidy is recommended.

(4) The doorbell sound was faint and unusual. Note that there is no requirement we are aware of that requires a doorbell, but if one is present it should function in our view. Replacement is recommended.

5) One outlets at the hall bathroom had an open ground, and should be serviced.

(6) The light above the sink is pull-chain operated. FYI.

3.7 The hall bathroom outlets were not provided with ground fault protection, which is required by today's commonly accepted construction standards and is an important safety feature. Ground fault circuit interrupter (GFCI) receptacles have been required in bathrooms since 1975 and they are recommended here as a life saving device.

3.9 There are numerous and possibly latent defects in the electrical components that have been installed in the crawl space and attic, which indicates that work was done without permits and was not performed by qualified professionals. We will not attempt to list all of the observed conditions and we may not have uncovered all of the defects that exist. For this reason, we cannot endorse the installed components and strongly suggest that a qualified electrician be contracted to evaluate and repair all of the electrical components within the home. Due to the inherent dangers associated with electrical defects and deficiencies, we also recommend that this be completed as soon as possible and before the close of escrow.

4. Basement, Crawl Space, Slab, Structure



IN NI NP RR Styles & Materials

Х

Х

Х

Х

Х

Х

IN NI NP RR

Х

Foundation Type: Raised Foundation

Crawl Space Entrance: Left side

Method used to observe

crawlspace: Crawled Used hand-held flashlight and a small probe

Crawl space inspection

limitations: Electrical hazards HVAC ducts Plumbing pipes Wet conditions

Crawl Space Moisture Barrier:

50% Not fastened to ground Portions displaced

Floor System Insulation: NONE

Foundation Walls: Brick

Foundation columns or piers: Block and brick Wood piers Steel lally columns

Exterior columns or piers: Porch columns-metal exterior

Floor Structure: Wood girders and joists standard dimension

Wall Structure:

Structure not visible due to finished areas Presumed to be wood studs

Ceiling Structure:

Rough cut wood joists 4" or better

Roof Structure:

Stick-built w/rough cut lumber Wood slats for sheathing

4.2 FOUNDATION WALLS 4.3 VISIBLE FRAMING 4.4 SUB-FLOOR INSULATION 4.5 EVIDENCE OF WATER SEEPAGE 4.6 SUMP & PUMP

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate

Comments:

4.0 CRAWL SPACE

4.1

COLUMNS OR PIERS

4.0 (1) This residence has a raised foundation, commonly called a crawl space. Such foundations permit access, and provide a convenient area for the distribution of water pipes, drain pipes, vent pipes, electrical conduits, and ducts. However, although raised foundations are far from uniform, most include concrete footings and walls that extend above the ground with anchor bolts or straps that hold the house onto the foundation, but the size and spacing of the bolts or straps vary. In the absence of major defects, most structural engineers agree that the one critical issue with modern raised foundations is that they should be bolted or strapped. Our inspection of these foundations conforms to industry standards, which is that of a generalist and not a specialist, and we do not use any specialized instruments to establish that the structure is level. We typically enter all accessible areas to look for any evidence of structural deformation or damage, but we may not comment on minor deficiencies, such as on commonplace settling cracks in the stem walls and slight deviations from plumb and level in the intermediate floor framing, which would have little structural significance. Interestingly, there is no absolute standard for evaluating cracks, but those that are less than Â1/4" and which do not exhibit any

vertical or horizontal displacement are generally not regarded as being structurally relevant. Nevertheless, all others should be evaluated by a specialist. However, in the absence of any major defects, we may not recommend that you consult with a foundation contractor, a structural engineer, or a geologist, but this should not deter you from seeking the opinion of any such expert.

(2) The access door is unhinged. Service is recommended for the door to work smoothly and to keep rodents and other animals out of the crawl space.

(3) Wood and/or other organic material was in the crawl space, which attracts wood destroying organisms. While we did not perform a pest control inspection, removal of all wood and similar materials from the crawl space is generally recommended.



(4) Debris was in the crawl space in quantities that may provide a haven for rodents or other pests. While we did not perform a pest control inspection, removal of all debris and similar materials from the crawl space is generally recommended.



(5) Large portions of the moisture barrier are displaced. To be fully effective, the plastic sheeting should be spread out.

The moisture barrier was not stapled to the ground to prevent displacement. In our experience, moisture barriers in crawl spaces without much clearance are easily displaced by crawling. Securing the moisture barrier to the ground with metal staples is standard practice and recommended here.

(6) Several foundation vents were closed. Inadequate ventilation of the crawl space results. We recommend that vents remain open year round, except during extremely cold weather.

4.1 (1) Even with the addition of new piers, other piers were leaning or deteriorated that have not been effectively reinforced by new piers. An evaluation of the house piers by a licensed engineer or foundation specialist and repair as deemed necessary by a general contractor is recommended.



(2) A portion of the floor structure was supported by various make-shift piers. Those floor supports exhibit poor workmanship are thought to be inadequate to provide permanent support to the floors. It is recommended that a competent and licensed general contractor or foundation specialist be consulted to provide a further evaluation of the adequacy of the floor supports and make necessary repairs.

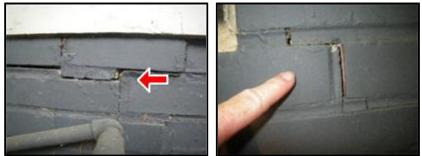


4.2 (1) There are pressure bulges in the foundation wall at the front of the home and along the left side that should be evaluated by a foundation specialist or structural engineer.



4 (2) There is a visible crack in the foundation a the right side. The crack was open and of measurable width

at the time of the inspection. A crack in the foundation indicates a deficiency. Cracks can change seasonally and progress over the life of the home. The crack may or may not penetrate through the foundation footing. A professionally engineer should be consulted to evaluate the foundation and determine extent of necessary repairs.



4.3 (1) Wooden components within the foundation crawlspace have an odor and brownish tinge which is similar or identical to wood that has been treated with a preservative known as creosote. Creosote is a possible human carcinogen, or a chemical that is capable of causing cancer. However, we do not have the expertise or the authority to identify or comment on chemical carcinogens, or exposure levels and recommend that if this is a concern to you that you consult with an industrial hygienist. More information may be obtained here: http://www.atsdr.cdc.gov/toxprofiles/tp85.html.

(2) The floor joists were spaced approximately 24 inches on center, which was common at the time of construction, but is wider than today's standard of 16 inches. The result may be "bouncy" floors and noticeable 'rolls' or 'waves' to the floor coverings if wood flooring or laminate is used.

(3) Extensive repairs and new wood (piers, joist, beams, etc.) were observed in various areas. You should ensure the repairs were performed by licensed contractors with the benefit of a permit and you may want to view the condition for yourself. If you cannot confirm the work was performed by a licensed contractor with the benefit of permits, then we recommend that you have a licensed contractor evaluate the work and current condition. Note: generally speaking, structural repairs (band sill replacement, etc.) requires a permit.



4.4 No insulation was provided for the sub-floor. Insulating the sub-floor to today's minimum standard of R-19 is recommended for thermal efficiency.

4.5 (1) The soils in the crawlspace are moist, which could indicate a chronic drainage problem. Moisture can adversely affect the house foundation and can facilitate the growth of a variety of molds that can promote unhealthy conditions. Therefore, you should consult a grading and drainage contractor or a licensed general contractor with experience in crawl space drainage and moisture to determine the extent of the concerns and necessary repairs. We also recommend that you observe the crawl space during a period of heavy or prolonged rain prior to the close of escrow or within the contingency period.

(2) There is efflorescence on the foundation wall in the crawl space at the front of the home which confirms a chronic moisture penetration condition that has activated minerals that form a white powdery formation of salt crystals. Therefore, you should consult a grading and drainage contractor or a licensed general contractor with experience in crawl space drainage and moisture to determine the extent of the concerns and necessary repairs.



5. Plumbing System



		IN	NI	NP	RF
5.0	VISIBLE WATER SUPPLY PIPING				Х
5.1	VISIBLE WASTE PIPING	Х			
5.2	VISIBLE VENT PIPING	Х			
5.3	WASTE DISPOSAL SYSTEM				Х
5.4	MAIN WATER SHUT-OFF (describe location)	Х			
5.5	WATER HEATER (describe date of manufacture)				Х
5.6	SHOWERS & ALL FIXTURES				Х
5.7	SUMP PUMP			Х	
5.8	EXTERIOR FAUCETS	Х			
5.9	DRAINS	Х			
5.10	WATER PRESSURE	Х			
5.11	WASHER & DRYER CONNECTIONS				Х
5.12	GAS PIPING	Х			
5.13	OTHER EQUIPMENT (waste ejection systems, laundry tubs, wet bars, etc.)			Х	
		IN	NI	NP	RF

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate

IN NI NP RR Styles & Materials

Water Source: Public

Waste Disposal Type: Thought to be public

Plumbing Water Supply (into building): Polybutylene

Plumbing Water Distribution (inside building): Copper Galvanized (in limited areas)

PEX in limited areas

Plumbing Waste: PVC

Chromed steel beneath sinks Plumbing Vents:

ABS

Water Heater Power Source: Electric

Water Heater Capacity: 38 Gallons

Water Heater Location: Crawl space

Water Temperature: 120 to 125 F.

Supply system functional flow: Yes

Waste system functional drainage: Yes

Laundry room location: Adjacent to kitchen

Dryer power source: Electric

Dryer vent to exterior: Corrugated foil

Gas plumbing system: Black steel pipe

Water Pressure: 70 to 80 psi (acceptable)

Comments:

5.0 (1) The water supply pipes include Polybutylene plastic (PB). Polybutylene has been used in this area for many years, but has had a higher than normal failure rate, and is no longer being widely used. Copper and brass fittings used in later years may have reduced the failure rate. There is also a current theory that chemicals in municipal water systems react with the piping and resins in the fittings, weakening the pipes and joints. Heat may also cause the pipes to deteriorate and burst. The manufacturers have settled a class action lawsuit alleging manufacturing defects with this plumbing system containing plastic or metal insert fittings (including copper and brass). For more information about PB, see http://www.pbpipe.com and other Internet resources. We recommend that you do your own research on this type of plumbing system and rely on the evaluation and advice of a licensed plumbing contractor prior to the close of escrow.



(2) There is a water supply pipe leak beneath the kitchen sink (valve for ice maker), which should be repaired by a licensed plumber within the contingency period, or before the close of escrow. This is particularly important because leaks can lead to the growth of molds and fungi, which can have an adverse influence on health.

(3) Some or all of the potable water pipes within this residence galvanized, and are assumed to be original. By their nature, they will produce rusty looking water from time to time, and because the water volume in such pipes will gradually be reduced by a build-up of minerals within them, we do not fully endorse them. We recommend that you have a plumber evaluate them and apprise you of the cost of re-plumbing the home.



(4) There is a water supply pipe leak in the crawl space, which should be repaired by a licensed plumber within the contingency period, or before the close of escrow. This is particularly important because leaks can lead to the growth of molds and fungi, which can have an adverse influence on health.



5.3 What is apparently a laundry drain exits the house separately. It was common to discharge a laundry drain separately when septic systems were in use, but it would not be permitted by today's standards. You may wish to consult with a licensed plumbing contractor about the acceptability and ramifications of this method of waste water disposal and/or have it traced.



5.4 The main water shut-off valve is located inside the crawl space. Note that this shutoff valve is not near the crawl space entrance; it is not easily accessible.

5.5 (1) Water heater estimated date of manufacture: 2008.

(2) The discharge pipe from the water heater temperature-pressure relief valve discharges into the crawl space, where any leaks would not be noticed. The discharge pipe should should be plumbed to a conspicuous location at the exterior, to an indirect waste receptor in the same room as the water heater, or to a concrete floor in a conspicuous area where no damage would result. We recommend that the discharge to a floor or the exterior terminate no more than twenty-four inches above grade and no closer than six inches to it

The discharge pipe from the water heater temperature-pressure relief valve is PVC, which is an unapproved material for this use. Service by a licensed and competent plumbing contractor is recommended.

(3) The water heater is sitting on or near the ground in the crawl space and is exposed to moist soil. The base will corrode if the unit is not elevated off the ground.

5.6 (1) Water leaks between the master bathroom sink and countertop (or between the countertop and backsplash) into the cabinet below. Sealant is recommended to prevent long term damage to the cabinet interior.

(2) The water supply could not be effectively controlled at the hall bathroom sink. The cold and hot water supplies are not correctly oriented and do not function as intended. The mixing valve should be serviced by a licensed plumbing contractor.

(3) The hall bathroom sink faucet is loose.

4) The drain stop at the hall bathroom sink does not engage or is missing, and should be serviced.

5.8 A common defect exists in that one or more exterior faucets was not equipped with back-flow prevention. These anti-siphon devices are required for by today's commonly accepted construction standards and are recommended to prevent suctioning non-potable water into the drinking water system if the house pressure suddenly drops.

5.11 The dryer vent in the crawlspace was corrugated, flexible ducting. Today's commonly accepted standards specify that corrugated ducts may be used only within the first 8 feet and may not be concealed within construction. The concealed ducts should be rigid metal ducts or equivalent, without screws, vented to the exterior of the home. This is recommended for fire safety reasons.



6.0 HEATING EQUIPMENT

6.3 VENTS

6.4 FILTERS

6.5 THERMOSTATS

6.1 AC CONDITION & OPERATION

and return air ducts & return openings)



IN NI NP BB	Styles & Materials
	Equipment Type:

Х

Х

Х

Х

Х

Х

Х

Equipment Type:	
HVAC Package System	

Locations:

Package system located at left side

Number of Heat Systems (excluding wood): One

Number of AC units: One

System Energy Source:

Electric AC Natural gas heat

Package System Manufacturer:

GOODMAN AC System BTUs:

36,000 Heating system BTUs: 92.000

Condensate Drain Discharge: Exterior of home

Distribution System: Insulated flexible ducts

Non-insulated metal ducts Filter Type:

Satisfactory Disposable

6.6 OTHER (observed condition of fixed units used for supplementary heat) IN NI NP RR

6.2 AIR DISTRIBUTION SYSTEMS (observed condition of the visible supply

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate

Comments:

6.0 (1) Package system estimated date of manufacture: 1995.

The HVAC system is estimated to be at or near the end of its design life and you should budget for a new system. This one will need to be more closely monitored, serviced bi-annually, and have its filters changed frequently. It may last for a year or more, or it may fail tomorrow; we cannot be certain. It would also be wise to keep a home warranty policy current.

4 (2) The package heating and AC system cabinet needs to be sealed where it meets the house wall.

5.2 HVAC ducts in the crawl space were on the ground. Ducts are required to be a minimum of 4 inches above ground. If this isn't possible due to height restrictions, then a sheet of plastic between the duct and the ground would be prudent.





No

		IN NI NP RR				Styles & Materials
7.0 ACCES	S	Х				Attic hatch
7.1 INSULA	ATION IN ATTIC				Х	Method used to observe attic: Direct access
7.2 VENTIL	ATOR FAN			Х		Insulation type:
7.3 WHOLE	E HOUSE FAN			Х		Mineral (rock) wool
7.4 VENTIL	ATION OF ATTIC				Х	Insulation depth: 4 - 6 inches
7.5 ATTIC I	FRAMING				Х	Less than R-30 Ventilation:
7.6 LEAKS					Х	Gable vents
		IN	I N		RR	Attic entrance(s) insulated:

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate Comments:

7.0 No insulation was provided at the interior of the attic opening. We recommend that you insulate the access for maximum thermal efficiency.

7.1 (1) All of the attic was under-insulated. This attic had approximately 6 inches of rock wool insulation, which is less than R30. Today's standards call for R30 levels of insulation in the attic and this is what we recommend. Note: R30 would be approximately 10 inches of fiberglass and 8.2 inches of cellulous.

(2) Portions of the ceilings are uninsulated. For thermal efficiency, you may want to add insulation to bring the attic up to today's standard of R30. Note: R30 would be approximately 12 inches of fiberglass and 10 inches of cellulous.



7.4 (1) The attic space is considered to have inadequate ventilation. Only gable vents provide ventilation for the structure. For venting to be effective the air has to be able to move. It is recommended that the structure be ventilated with both: A) An air intake preferably located as close to the eaves as possible. (Most often this is done through soffit vents. Ensure the soffit vents are not obstructed by insulation.) B) An air exhaust preferably located as close to the ridge as possible. "The total net free ventilating area should not be less than 1 to 150 of the area of the space ventilated except that the total area is permitted to be reduced to 1 to 300..." provided mechanical ventilators are used. When only gable vents are used, effectiveness is more determined by wind movement. Area calculations were not conducted; it is recommended that a state licensed general contractor evaluate the adequacy of attic ventilation and add ventilation as deemed necessary. Failure to increase ventilation will result in higher than normal utility bills and decreased shingle life.

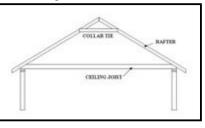
(2) We recommend increasing the ventilation with the installation of a ridge vent when the roof covering is replaced.

7.5 (1) The roof sheathing appears to have a dip or sag at the right side. Visible sags or humps in the roof

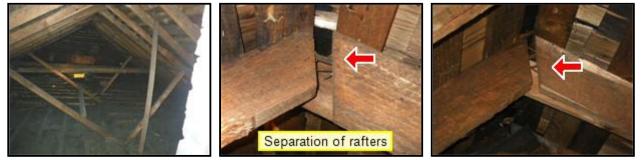
framing were not visible from within the attic, however. We can elaborate on the possible reasons for this, but you should have a roofing contractor evaluate the roof or comment on this specific feature.

(2) The attic framing was not framed with collar ties, which serve to prevent the rafters from spreading. This was an accepted practice at the time of construction but we saw evidence of rafter sagging and separation. We therefore recommend an evaluation by a competent and licensed general contractor.





(3) A 'jumble' of miscellaneous, loose braces is all that provides support to the attic. The rafters have spread at the roof peak. An evaluation and service by a licensed and competent general contractor is recommended.



(4) Components of the roof framing have been scorched or charred. You should request information about this from the sellers, and if the charred framing has not been evaluated by an engineer it should be.

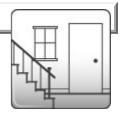


(5) While we are not trained or licensed to perform a pest control inspection, signs of previous or current activity by wood destroying organisms were observed in the attic and you should obtain a pest control inspection prior to close of escrow. Additionally, we recommend that a licensed general contractor evaluate the affected attic framing and make repairs as deemed necessary.



7.6 Roof sheathing is water damaged around the chimney. An active leak may exist and we recommend an evaluation and repair as deemed necessary by a competent roofing contractor unless the current owner can demonstrate that repairs have been performed. The areas were dry at the time of the inspection.





						Styles & Materials Ceiling Materials:
8.0	WALLS	Х				Sheetrock
8.1	CEILINGS	Х				Plaster Wall Material:
8.2	FLOORS & FLOOR COVERINGS				Х	Plaster Tile
8.3	STAIRS & RAILINGS			Х		Wood
8.4	DOORS				Х	Floor Covering(s): Area rug
8.5	WINDOWS				Х	Carpet
8.6	BATHROOM VENTILATORS				Х	Tile Wood
8.7	BATHROOM CABINETS	Х				Doors: Hollow core
8.8	FIREPLACES				Х	Solid
8.9	OTHER				Х	Types of Fireplaces: Solid Fuel
		IN	NI	NP	RR	Gas logs
IN=Ir	nspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate					Operable Fireplaces: Two

Comments:

8.2 The kitchen floor is out of level. While slight deviations from level are not uncommon in older homes, after considering all the factors, we have concluded that this issue is a significant structural defect. We can elaborate, but recommend that you consult with a structural engineer, foundation contractor, or flooring specialist however.

8.4 (1) Glazing in the laundry room door is not identified as tempered glass. According to today's standards for new construction, tempered glass is required in all door glazing. We recommend the installation of tempered glass for safety reasons.

(2) The dining room glass doors would not close. The doors are loose on the hinges. Service is needed.

(3) Door stops were missing throughout the house and will need to be replaced to prevent damage to the walls or doors.

4) The dining room door striker plate is missing. Service is recommended for the door to work smoothly.

(5) The right center bedroom door, or doors, should be undercut to promote positive air circulation.

(6) The front right bedroom door drags on the floor and needs to be serviced to work smoothly. Undercutting the door to protect the floor covering and to allow conditioned air to return to the HVAC register is recommended.

8.5 (1) Two window(s) in the den is/are stuck or painted shut, and should be serviced.

(2) One window(s) in the front right bedroom is/are stuck or painted shut, and should be serviced.

8.6 One or more bathroom vent(s) exhausts directly into the attic. The bathroom exhaust duct(s) should be extended to an exterior vent port to prevent moisture damage to structure or ceilings. They should all be verified to be installed correctly.

8.8 (1) The interior of the fireplace flues was not visible and could not inspected. You should not burn any combustible materials or vented gas logs in this fireplace until it is inspected by a fireplace specialist.

(2) The shutoff valve for the gas fireplace is not readily accessible. Today's commonly accepted standards require ready access to a shutoff valve separate from the appliance, in the same room as the appliance, and not further than 6 feet from the appliance. That is recommended for safety reasons.

(3) We were unable to determine if the gas log set is designed to be vented or un-vented. This is important, because if it is the vented type, then the chimney and damper must be open to discharge products of combustion. Carbon monoxide is a deadly gas! You should obtain documentation about the gas log type and operate the logs according to the manufacturer's instructions. Also, clearances to combustible materials are determined by the manufacturer of the gas logs, so you should understand their specifications regarding fire prevention as well.

(4) We were unable to activate the gas logs, which is not unusual. You should have the homeowner/builder demonstrate its operation and transfer any operating manuals to you.

8.9 Laundry room cabinets need knobs or pulls.



		IN	NI	NP	RR
9.0	CABINETS				Х
9.1	DISHWASHER	Х			
9.2	BUILT-IN MICROWAVE			Х	
9.3	GARBAGE DISPOSER			Х	
9.4	EXHAUST FAN OR HOOD				Х
9.5	ELECTRIC RANGE				Х
		IN	NI	NP	RR

Styles & Materials Cabinet condition: Functional w/o significant damage Aged Fan/Vent hood: Vented

IN=Inspected, NI=Not Inspected, NP=Not Present, RR=Repair or Replace or Investigate **Comments:**

9.0 (1) The kitchen cabinets are the same age as the residence, and may not function as well as newer ones.

(2) Some kitchen cabinet doors need magnets or hardware to stay shut.

9.4 The kitchen exhaust vent is designed to vent to the exterior. However, the duct in the attic does not penetrate the roof. All kitchen exhaust will be directed into the attic space. It is recommend that all kitchen exhaust be vented to the exterior of the house, as designed.

9.5 The range is not level and wobbles. Service is recommended.



"A wise man builds his house upon the Rock" Mat. 7:24

2992 Howell's Ferry Rd., Hickory Grove, SC Tel: 803-925-1502 / Fax: 803-925-2853 / Mobile: 704-351-8989 www.aohomeinspection.com / jfunderburk@aohomeinspection.com

SC License #: 1736 / NC License #: 2240 / NACHI #: NACHI05120170

Summary Section

Customer

Address

634 Anystreet MyTown SC

The items or discoveries listed in the Summary Section indicate that these systems or components do not function as intended, adversely affects the habitability of the dwelling, requires repair or subsequent observation, or warrants further investigation by a qualified specialist. This summary is not the entire report. The full report may include additional information of interest or concern to the client. It is strongly recommended that the client promptly read the complete report. For information regarding the negotiability of any item in this report under a real estate purchase contract, contact your real estate agent or an attorney. Regardless, in recommending service we have fulfilled our contractual obligation as generalists, and therefore disclaim any further responsibility. However, service of the following items prior to close of escrow is essential, because a specialist could identify further defects or recommend some upgrades that could affect your evaluation of the property. Note: any locations given, such as "left front", are oriented as if facing the front of the house from the front yard. We report what was visible and other defects may exist (beneath insulation, behind walls, floors, etc.) which were not visible. Also, photographs may be included as examples, but do not necessarily illustrate all defects observed. When two or more defects are found in a certain system (electrical for example), we strongly recommend having the entire system evaluated by a specialist. This inspection service reserves the right to amend the inspection report within 24 hours of completion. The cost for a re-inspection to verify repairs were conducted is posted on our website.

This report copyrighted and is not transferable. It is the exclusive property of Alpha & Omega Home Inspections, LLC and the clients whose names appear herewith. Its use by any unauthorized persons is strictly prohibited, and agents are specifically cautioned against providing it to any unauthorized third party.

1. Exterior





1.0 GRADING, DRAINAGE & VEGETATION

Repair or Replace or Investigate

(3) Grading and drainage is either negative or neutral adjacent to the residence, and moisture intrusion will remain a possibility. The soil or the hard surfaces should slope away from the residence to a distance of at least six feet to keep moisture away from the footings. We can elaborate on this issue, but you should seek a second opinion from a grading and drainage contractor prior to close of escrow. At a minimum, you should observe the crawl space conditions prior to the close of escrow during a period of heavy or prolonged rain.

1.3 SIDING / WALL COVERINGS

Repair or Replace or Investigate

One area(s) of the wall siding were not adequately sealed at butt end joints and where it meets the house trim. A thorough review of the siding by a licensed contractor and service to seal the openings is recommended. Failure to seal the joints may result in long-term deterioration of the siding or sheathing behind it.

1.6 PAINT

Repair or Replace or Investigate

Sections of the house siding and eaves need paint at many areas. Bare wood was exposed to the elements and it may deteriorate if paint is not applied.

1.8 DOORS (Exterior)

Repair or Replace or Investigate

- (2) We could not confirm that the glass in main entry exterior doors is safety glazing. According to today's commonly accepted construction standards, safety glazing is required in such locations. Upgrading the glass to safety gazing is recommended for safety reasons.
- (3) The rear entry door hinge was missing screws and needs service.

1.9 STORM WINDOWS & DOORS

Repair or Replace or Investigate

(2) A storm door has a small crack in the glass at the front right bedroom.

1.10 SCREENS

Repair or Replace or Investigate

Two or more of the window screens were not installed. Screens are often removed for aesthetic reasons, but you may wish to have them installed or inquire with the owner about their location.

1.11 PORCHES

Repair or Replace or Investigate

- (1) A front porch post or column is loose or not secured and should be serviced.
- (2) Sections of the tile at the front porch are in poor condition and should be replaced by a specialist.

1.12 DECKS, PATIOS, AND BALCONIES

Repair or Replace or Investigate

- (1) The rear deck guardrail balusters do not conform to today's commonly accepted construction standards. The pickets should be spaced no more than four inches apart for child safety, and that is what we recommend if small children will be present.
- (3) A baluster or picket is loose at the rear deck guard rail or stair rail and should be serviced for safety

1. Exterior



reasons.

- (4) The rear deck needs maintenance-type service such as sanding, pressure washing, sealing or painting, which will prolong the life of the structure.
- (5) The flashing for the rear deck was not visible. The potential for water to penetrate behind the deck ledger and siding may exist. We suggest that you have the deck installation method evaluated by a licensed general contractor.

2. Roofing, Guttering & Other Roof Components



2.0 ROOF COVERINGS

Repair or Replace or Investigate

- (3) Lichen or other types of organic growth were observed on roof shingles. We recommend killing the growth with copper sulfate or other approved chemicals to prevent damage to the shingles.
- (4) The roof is in a stage of serious decomposition (loss of shingle granules, etc.), which means that the roof is susceptible to leaks. It is at the end of its serviceable life in our opinion. We recommend an evaluation of the roof by a competent roofing contractor before the close of escrow because the cost of replacement may affect your valuation of the property.
- (5) A roof leak (or gutter overflow) at the front of the home, left of the porch, has caused damage to the roof sheathing. Service by a competent roofing contractor is recommended.

2.5 GUTTERS & DOWNSPOUTS

Repair or Replace or Investigate

(2) The gutters and/or downspouts need to be cleaned and serviced to drain properly. The debris in gutters can also conceal rust, deterioration or leaks that are not visible until cleaned. Left unaddressed, clogged gutters will allow water to penetrate unintended areas and may result in decay to wood structures behind the gutters.

3. Electrical System	
----------------------	--

3.1 MAIN PANEL

Repair or Replace or Investigate

- (1) Various circuits within the main panel are not labeled, were mis-identified, or the labels were illegible. They should be properly labeled for safety reasons, and so that the appropriate load calculations and breaker sizes can be determined.
- (2) The main panel cover would not effectively close so that the unit is water tight. The cover has been modified from the original design. The interior is therefore exposed to moisture. Service or replacement

3. Electrical System



is recommended.

3.3 OVER-CURRENT PROTECTION

Repair or Replace or Investigate

The electrical system does not include arc-fault circuit interrupters (AFCIs), which effective January 1st, 2002, were mandated by nationally recognized electrical standards to protect 15 and 20 amp branch circuits serving bedrooms. Note that we consider AFCIs an important safety feature and consideration should be given to upgrading the circuits regardless of the regulatory requirements at the time of construction. Note also that the home has been recently re-wired and no AFCIs were installed, which may mean the the installation was performed without the benefit of a permit.

3.4 MAIN & BRANCH CIRCUITS

Repair or Replace or Investigate

- (1) Non-metallic sheathed cable, within 7 feet of the floor or ground surface at the main entry door, was not protected from damage. Installation in conduit or behind walls is recommended.
- (2) Non-metallic sheathed cable in a kitchen cabinet was not protected from potential damage. Installation in conduit or behind walls is recommended.
- (3) There are unprotected electrical conductors within six feet of the attic access. Today's commonly accepted construction standards prohibit this practice and we recommend that they be relocated for safety reasons.
- (4) The residence is wired with suspect knob-and-tube wiring, which was commonly installed prior to 1950. It is ungrounded and over time the wire's insulation may become brittle and fall apart or wear thin, resulting in exposed conductors and a risk of shock and/or fire. The hazard is increased by covering it with insulation (we observed this condition at this home), and incorrectly tapping new wiring into it. The wiring should be evaluated by a <u>competent</u>, licensed electrician and certified as being safe or replaced.
- (5) Many electrical connection(s) in the attic have been incorrectly made outside of junction boxes, which is a potential fire hazard. All such connections should be made within junction boxes in order to contain any arching or sparking that could occur, a task that should be completed by a licensed electrician.
- (6) There is no service disconnect at the electric water heater, which is required unless the unit is within fifty feet and within the line of sight of the electrical panel. A disconnect or breaker capable of being locked open is recommended for safety reasons.
- (7) <u>Many</u> wires in the crawlspace has been improperly terminated. Removal or enclosing it in a junction box is recommended. We realize that much of the house has been re-wired, but we cannot determine that all the dangling wires are not capable of being energized by the flipping of a certain switch or breaker. Common practice is to remove old wiring or terminate it properly for safety reasons and to remove all doubt about which systems are potentially live.
- (8) In the crawl space, <u>many</u> electric cables dangled overhead. Electric cables are required to be supported overhead every 4.5 feet.
- (9) Several electrical connection(s) in the crawlspace have been incorrectly made outside of junction boxes, which is a potential fire hazard. All such connections should be made within junction boxes in order to contain any arching or sparking that could occur, a task that should be completed by a licensed electrician.
- (10) <u>Many</u> open electrical junction box(s) were observed in the crawlspace which should be sealed to contain any arcing or sparking that might occur.
- (11) The quality and condition of the electrical work that was recently performed in this house is among the worst we have ever encountered. It is difficult for us to imagine that this work was performed by a licensed electrician. We therefore recommend that a competent and licensed electrician perform a review of the entire house and make repairs as deemed necessary.

FIXTURES & OUTLETS

3. Electrical System



3.6

Repair or Replace or Investigate

- (3) The kitchen light fixture ground wire was fastened in an unorthodox manner. Service to hide or make the wire tidy is recommended.
- (4) The doorbell sound was faint and unusual. Note that there is no requirement we are aware of that requires a doorbell, but if one is present it should function in our view. Replacement is recommended.
- (5) One outlets at the hall bathroom had an open ground, and should be serviced.

3.7 GROUND-FAULT-CIRCUIT INTERRUPTER (GFCI)

Repair or Replace or Investigate

The hall bathroom outlets were not provided with ground fault protection, which is required by today's commonly accepted construction standards and is an important safety feature. Ground fault circuit interrupter (GFCI) receptacles have been required in bathrooms since 1975 and they are recommended here as a life saving device.

3.9 OTHER

Repair or Replace or Investigate

There are numerous and possibly latent defects in the electrical components that have been installed in the crawl space and attic, which indicates that work was done without permits and was not performed by qualified professionals. We will not attempt to list all of the observed conditions and we may not have uncovered all of the defects that exist. For this reason, we cannot endorse the installed components and strongly suggest that a qualified electrician be contracted to evaluate and repair all of the electrical components within the home. Due to the inherent dangers associated with electrical defects and deficiencies, we also recommend that this be completed as soon as possible and before the close of escrow.

4. Basement, Crawl Space, Slab, Structure

4.0 CRAWL SPACE

Repair or Replace or Investigate

- (2) The access door is unhinged. Service is recommended for the door to work smoothly and to keep
 rodents and other animals out of the crawl space.
- (3) Wood and/or other organic material was in the crawl space, which attracts wood destroying organisms. While we did not perform a pest control inspection, removal of all wood and similar materials from the crawl space is generally recommended.
- (4) Debris was in the crawl space in quantities that may provide a haven for rodents or other pests. While we did not perform a pest control inspection, removal of all debris and similar materials from the crawl space is generally recommended.
- (5) Large portions of the moisture barrier are displaced. To be fully effective, the plastic sheeting should be spread out.

The moisture barrier was not stapled to the ground to prevent displacement. In our experience, moisture

4. Basement, Crawl Space, Slab, Structure



barriers in crawl spaces without much clearance are easily displaced by crawling. Securing the moisture barrier to the ground with metal staples is standard practice and recommended here.

(6) Several foundation vents were closed. Inadequate ventilation of the crawl space results. We recommend that vents remain open year round, except during extremely cold weather.

4.1 COLUMNS OR PIERS

Repair or Replace or Investigate

- (1) Even with the addition of new piers, other piers were leaning or deteriorated that have not been effectively reinforced by new piers. An evaluation of the house piers by a licensed engineer or foundation specialist and repair as deemed necessary by a general contractor is recommended.
- (2) A portion of the floor structure was supported by various make-shift piers. Those floor supports exhibit poor workmanship are thought to be inadequate to provide permanent support to the floors. It is recommended that a competent and licensed general contractor or foundation specialist be consulted to provide a further evaluation of the adequacy of the floor supports and make necessary repairs.

4.2 FOUNDATION WALLS

Repair or Replace or Investigate

- (1) There are pressure bulges in the foundation wall at the front of the home and along the left side that should be evaluated by a foundation specialist or structural engineer.
- (2) There is a visible crack in the foundation a the right side. The crack was open and of measurable width at the time of the inspection. A crack in the foundation indicates a deficiency. Cracks can change seasonally and progress over the life of the home. The crack may or may not penetrate through the foundation footing. A professionally engineer should be consulted to evaluate the foundation and determine extent of necessary repairs.

4.5 EVIDENCE OF WATER SEEPAGE

Repair or Replace or Investigate

- (1) The soils in the crawlspace are moist, which could indicate a chronic drainage problem. Moisture can adversely affect the house foundation and can facilitate the growth of a variety of molds that can promote unhealthy conditions. Therefore, you should consult a grading and drainage contractor or a licensed general contractor with experience in crawl space drainage and moisture to determine the extent of the concerns and necessary repairs. We also recommend that you observe the crawl space during a period of heavy or prolonged rain prior to the close of escrow or within the contingency period.
- (2) There is efflorescence on the foundation wall in the crawl space at the front of the home which confirms a chronic moisture penetration condition that has activated minerals that form a white powdery formation of salt crystals. Therefore, you should consult a grading and drainage contractor or a licensed general contractor with experience in crawl space drainage and moisture to determine the extent of the concerns and necessary repairs.

5. Plumbing System



5.0 VISIBLE WATER SUPPLY PIPING

Repair or Replace or Investigate

5. Plumbing System



- (1) The water supply pipes include Polybutylene plastic (PB). Polybutylene has been used in this area for many years, but has had a higher than normal failure rate, and is no longer being widely used. Copper and brass fittings used in later years may have reduced the failure rate. There is also a current theory that chemicals in municipal water systems react with the piping and resins in the fittings, weakening the pipes and joints. Heat may also cause the pipes to deteriorate and burst. The manufacturers have settled a class action lawsuit alleging manufacturing defects with this plumbing system containing plastic or metal insert fittings (including copper and brass). For more information about PB, see http://www.pbpipe.com and other Internet resources. We recommend that you do your own research on this type of plumbing system and rely on the evaluation and advice of a licensed plumbing contractor prior to the close of escrow.
- (2) There is a water supply pipe leak beneath the kitchen sink (valve for ice maker), which should be repaired by a licensed plumber within the contingency period, or before the close of escrow. This is particularly important because leaks can lead to the growth of molds and fungi, which can have an adverse influence on health.
- (3) Some or all of the potable water pipes within this residence galvanized, and are assumed to be original. By their nature, they will produce rusty looking water from time to time, and because the water volume in such pipes will gradually be reduced by a build-up of minerals within them, we do not fully endorse them. We recommend that you have a plumber evaluate them and apprise you of the cost of replumbing the home.
- (4) There is a water supply pipe leak in the crawl space, which should be repaired by a licensed plumber within the contingency period, or before the close of escrow. This is particularly important because leaks can lead to the growth of molds and fungi, which can have an adverse influence on health.

5.3 WASTE DISPOSAL SYSTEM

Repair or Replace or Investigate

What is apparently a laundry drain exits the house separately. It was common to discharge a laundry drain separately when septic systems were in use, but it would not be permitted by today's standards. You may wish to consult with a licensed plumbing contractor about the acceptability and ramifications of this method of waste water disposal and/or have it traced.

5.5 WATER HEATER (describe date of manufacture)

Repair or Replace or Investigate

(2) The discharge pipe from the water heater temperature-pressure relief valve discharges into the crawl space, where any leaks would not be noticed. The discharge pipe should should be plumbed to a conspicuous location at the exterior, to an indirect waste receptor in the same room as the water heater, or to a concrete floor in a conspicuous area where no damage would result. We recommend that the discharge to a floor or the exterior terminate no more than twenty-four inches above grade and no closer than six inches to it

The discharge pipe from the water heater temperature-pressure relief valve is PVC, which is an unapproved material for this use. Service by a licensed and competent plumbing contractor is recommended.

(3) The water heater is sitting on or near the ground in the crawl space and is exposed to moist soil. The base will corrode if the unit is not elevated off the ground.

5.6 SHOWERS & ALL FIXTURES

Repair or Replace or Investigate

(1) Water leaks between the master bathroom sink and countertop (or between the countertop and backsplash) into the cabinet below. Sealant is recommended to prevent long term damage to the cabinet interior. 5. Plumbing System



- Æ (2) The water supply could not be effectively controlled at the hall bathroom sink. The cold and hot water supplies are not correctly oriented and do not function as intended. The mixing valve should be serviced by a licensed plumbing contractor.
- Æ (3) The hall bathroom sink faucet is loose.
- Æ (4) The drain stop at the hall bathroom sink does not engage or is missing, and should be serviced.

5.11 **WASHER & DRYER CONNECTIONS**

Repair or Replace or Investigate

Æ The dryer vent in the crawlspace was corrugated, flexible ducting. Today's commonly accepted standards specify that corrugated ducts may be used only within the first 8 feet and may not be concealed within construction. The concealed ducts should be rigid metal ducts or equivalent, without screws, vented to the exterior of the home. This is recommended for fire safety reasons.

6. Heating & Air Conditioning HEATING EQUIPMENT 6.0

Repair or Replace or Investigate

- Æ (2) The package heating and AC system cabinet needs to be sealed where it meets the house wall.
- 6.2 AIR DISTRIBUTION SYSTEMS (observed condition of the visible supply and return air ducts & return openings)

Repair or Replace or Investigate

Æ HVAC ducts in the crawl space were on the ground. Ducts are required to be a minimum of 4 inches above ground. If this isn't possible due to height restrictions, then a sheet of plastic between the duct and the ground would be prudent.

7. Attic



7.1 **INSULATION IN ATTIC**

Repair or Replace or Investigate

(2) Portions of the ceilings are uninsulated. For thermal efficiency, you may want to add insulation to Æ bring the attic up to today's standard of R30. Note: R30 would be approximately 12 inches of fiberglass and 10 inches of cellulous.

VENTILATION OF ATTIC 7.4

Repair or Replace or Investigate

7. Attic



(1) The attic space is considered to have inadequate ventilation. Only gable vents provide ventilation for the structure. For venting to be effective the air has to be able to move. It is recommended that the structure be ventilated with both: A) An air intake preferably located as close to the eaves as possible. (Most often this is done through soffit vents. Ensure the soffit vents are not obstructed by insulation.) B) An air exhaust preferably located as close to the ridge as possible. "The total net free ventilating area should not be less than 1 to 150 of the area of the space ventilated except that the total area is permitted to be reduced to 1 to 300..." provided mechanical ventilators are used. When only gable vents are used, effectiveness is more determined by wind movement. Area calculations were not conducted; it is recommended that a state licensed general contractor evaluate the adequacy of attic ventilation and add ventilation as deemed necessary. Failure to increase ventilation will result in higher than normal utility bills and decreased shingle life.

7.5 ATTIC FRAMING

Repair or Replace or Investigate

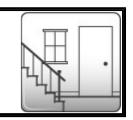
- (1) The roof sheathing appears to have a dip or sag at the right side. Visible sags or humps in the roof framing were not visible from within the attic, however. We can elaborate on the possible reasons for this, but you should have a roofing contractor evaluate the roof or comment on this specific feature.
- (2) The attic framing was not framed with collar ties, which serve to prevent the rafters from spreading. This was an accepted practice at the time of construction but we saw evidence of rafter sagging and separation. We therefore recommend an evaluation by a competent and licensed general contractor.
- (4) Components of the roof framing have been scorched or charred. You should request information about this from the sellers, and if the charred framing has not been evaluated by an engineer it should be.
- (5) While we are not trained or licensed to perform a pest control inspection, signs of previous or current activity by wood destroying organisms were observed in the attic and you should obtain a pest control inspection prior to close of escrow. Additionally, we recommend that a licensed general contractor evaluate the affected attic framing and make repairs as deemed necessary.

7.6 LEAKS

Repair or Replace or Investigate

Roof sheathing is water damaged around the chimney. An active leak may exist and we recommend an evaluation and repair as deemed necessary by a competent roofing contractor unless the current owner can demonstrate that repairs have been performed. The areas were dry at the time of the inspection.

8. General Interior



8.2 FLOORS & FLOOR COVERINGS

Repair or Replace or Investigate

The kitchen floor is out of level. While slight deviations from level are not uncommon in older homes, after considering all the factors, we have concluded that this issue is a significant structural defect. We can elaborate, but recommend that you consult with a structural engineer, foundation contractor, or flooring specialist however.

8.4 DOORS

8. General Interior



Repair or Replace or Investigate

- (1) Glazing in the laundry room door is not identified as tempered glass. According to today's standards for new construction, tempered glass is required in all door glazing. We recommend the installation of tempered glass for safety reasons.
- (2) The dining room glass doors would not close. The doors are loose on the hinges. Service is needed.
- (3) Door stops were missing throughout the house and will need to be replaced to prevent damage to the walls or doors.
- (4) The dining room door striker plate is missing. Service is recommended for the door to work smoothly.
- (5) The right center bedroom door, or doors, should be undercut to promote positive air circulation.
- (6) The front right bedroom door drags on the floor and needs to be serviced to work smoothly. Undercutting the door to protect the floor covering and to allow conditioned air to return to the HVAC register is recommended.

8.5 WINDOWS

Repair or Replace or Investigate

- (1) Two window(s) in the den is/are stuck or painted shut, and should be serviced.
- (2) One window(s) in the front right bedroom is/are stuck or painted shut, and should be serviced.

8.6 BATHROOM VENTILATORS

Repair or Replace or Investigate

One or more bathroom vent(s) exhausts directly into the attic. The bathroom exhaust duct(s) should be extended to an exterior vent port to prevent moisture damage to structure or ceilings. They should all be verified to be installed correctly.

8.8 FIREPLACES

Repair or Replace or Investigate

- (1) The interior of the fireplace flues was not visible and could not inspected. You should not burn any combustible materials or vented gas logs in this fireplace until it is inspected by a fireplace specialist.
- (2) The shutoff valve for the gas fireplace is not readily accessible. Today's commonly accepted standards require ready access to a shutoff valve separate from the appliance, in the same room as the appliance, and not further than 6 feet from the appliance. That is recommended for safety reasons.
- (3) We were unable to determine if the gas log set is designed to be vented or un-vented. This is important, because if it is the vented type, then the chimney and damper must be open to discharge products of combustion. Carbon monoxide is a deadly gas! You should obtain documentation about the gas log type and operate the logs according to the manufacturer's instructions. Also, clearances to combustible materials are determined by the manufacturer of the gas logs, so you should understand their specifications regarding fire prevention as well.
- (4) We were unable to activate the gas logs, which is not unusual. You should have the homeowner/builder demonstrate its operation and transfer any operating manuals to you.

8.9 OTHER

Repair or Replace or Investigate

Laundry room cabinets need knobs or pulls.

9. Kitchens & Appliances



9.0 CABINETS

Repair or Replace or Investigate

(2) Some kitchen cabinet doors need magnets or hardware to stay shut.

9.4 EXHAUST FAN OR HOOD

Repair or Replace or Investigate

The kitchen exhaust vent is designed to vent to the exterior. However, the duct in the attic does not penetrate the roof. All kitchen exhaust will be directed into the attic space. It is recommend that all kitchen exhaust be vented to the exterior of the house, as designed.

9.5 ELECTRIC RANGE

Repair or Replace or Investigate

The range is not level and wobbles. Service is recommended.

This report copyrighted and is not transferable. It is the exclusive property of Alpha & Omega Home Inspections, LLC and the clients whose names appear herewith. Its use by any unauthorized persons is strictly prohibited, and agents are specifically cautioned against providing it to any unauthorized third party.