Home Inspection Report

Durham, N.C. 27713

For:_____

Friday, August 17, 2012



By: Fred Herndon Home Inspections

N.C. Home Inspector's License # 322 7113 Massey Chapel Rd, Durham, N.C. 27713 Phone: 919-405-2220

Fred Herndon Home Inspections, Inc. N.C. Home Inspector's License # 322

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Invoice

Fred Herndon Home Inspections, Inc. 7113 Massey Chapel Road Durham, N.C. 27713

Client's Name: _____

Property Address: ______, Durham, N.C. 27713

Inspection Date: August 17, 2012

Report Number: 13719

Inspector: Fred Herndon, License # 322

Inspection Fees

Home Inspection	\$630.00
Reinspection	
Radon testing	
Construction progress monitoring	
Late Payment	
Other:	
Total:	\$630.00

All fees were paid by check # 1105 at the time of the inspection.

Thank you for your business!

Ford f. Henden

Please print a copy of this receipt for your records

Standards and Limiting Conditions

Your inspector agrees to perform this inspection thoroughly and with due diligence in accordance with the Professional Standards as promulgated by the State of North Carolina Home Inspector Licensure Board and the American Society of Home Inspectors (ASHI). The Inspector will document visual observations and opinions based on his experience, knowledge and training. Terms of this contract will be applicable for any future reinspections done for the Client on this property.

Payment of all inspection fees will be made in full at the time of the inspection unless previously agreed. If payment is to be made on closing there will be an extra bookkeeping charge of \$50.00 and a valid credit card will be required. If closing is delayed for any reason whatsoever all fees become due and payable immediately.

The contents of this report are confidential and cannot be released to any other parties without your express written permission. Neither the contents of this report nor any representations made herein are assignable without written permission of Fred Herndon Home Inspections Inc.

It is understood that no opinion can be given as to the condition or structural integrity of any inaccessible or concealed areas of the home. No destructive testing or dismantling will be performed, or furniture or stored items moved. Your inspector reserves the right not to enter any dangerous areas (such as steep, wet or frost covered roofs). Items such as security systems, swimming pools, water softeners, window air conditioners, underground service lines, outbuildings, solar heating systems, geologic stability, electromagnetic radiation or other environmental hazards <u>specifically including the presence of any toxic or allergy producing molds</u>, or anything requiring laboratory testing or engineering analysis are beyond the scope of this inspection. We do not inspect for compliance with building codes or local housing ordinances. Cooling systems may not be tested if outdoor temperatures are below 60 degrees at the time of inspection due to the difficulty in obtaining reliable results and the potential for damage to the compressors.

This report reflects conditions of the property as of the date of this inspection only. No warranty or representation is made as to the life or durability of the home or any of its components. *It is agreed that, in the event of any inadvertent errors or omissions contained within this report, that any claims against Fred Herndon Home Inspections Inc. or Fred Herndon personally shall be limited to the total fee for this inspection. Client agrees to allow the inspector to examine any problem area or subject of any claim and offer a reasonable resolution prior to the client's performance of remedial repairs.* Any controversy or claim arising out of or relating to this contract, or the breach thereof shall be settled by binding arbitration administered by Construction Arbitration & Mediation Services (www.buildingdisputes.net) under its rules and procedures for the Arbitration of Home Inspection Disputes, and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. You agree that if the Inspector recommends further evaluation of any system or component that you will have this done before the end of any inspection contingency and before closing.

These terms and conditions shall be deemed severable. In the event that any provision is determined to be unenforceable or invalid, such provision shall nonetheless be enforced to the fullest extent permitted by applicable law, and such determination shall not affect the validity and enforceability of any other remaining provisions.

NOTE: If you were unable to attend the inspection or did not receive a copy of the Standards of Practice please visit <u>http://www.nchilb.com/OSFM/Engineering/HILB/NCHILB.asp</u> and choose Board Rules or <u>http://www.ashi.com/inspectors/standards/standards.asp</u>.

Conditions at the time of the inspection

Age of the home: Blt. 2004 Approximate heated square footage: 4,300 Weather conditions: Partly cloudy Outdoor temperature: 85-90 degrees Soil conditions: Dry House occupied or vacant: Vacant Persons attending the inspection: Inspector, realtor, client Realtor information: Phyllis Brown Time started: 1:30 PM Time completed: 5:45 PM

Conventions and terminology used within this report

Excellent: This system or component is in exceptionally good condition and maintenance and worthy of special notice. No repairs or upgrades recommended.

Good: This system or component is functional and in somewhat better than average condition. No repairs or upgrades recommended

OK: This system or component is functional and serving the purpose for which designed and not in need of repair. This is the most common designation used. Some upgrades may be desirable in older construction.

Fair: This system or component is functional but showing age or wear. Minor repairs and maintenance may be needed, and you may want to budget for additional repair or replacement in the fairly near future.

Poor: This system or component is at or near the end of it's useful life or no longer serving the purpose for which intended and is in need of immediate repair or replacement.

Locations of exterior components or problem areas will be described as if facing the front of the home (plan view). Interior components or problem areas will be described as if facing them from within the room. All items listed in the report were inspected unless specified otherwise.

Our mission statement: To provide an objective, informed opinion of the condition of the property for home buyers, sellers and Realtors.

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1. Sitework and Grading

Driveway

Materials	Concrete
Condition	Good
Drainage	Good

Sidewalks

Materials	Concrete
Condition	Good
Drainage	ОК

Grading

Drainage	ОК
Soil level at foundation	ОК
	Reversed grade was noted along the right front wall where fill has settled, permitting surface water to drain against the foundation. This can result in crawl space water intrusion and uneven settlement. Grading should be repaired to permit surface water to drain away from the home.

General Comments, Sitework and Grading

Shrubbery and vegetation should be kept trimmed back at least 12" from the home to prevent wicking up of moisture and an entry point for insects.

2. Exterior and Structural Components

Exterior Stairs

Condition	ОК
Rise/run	7" x 12"
Handrails	The bottoms of pickets on the front step railings are beginning to deteriorate. Any rotted wood should be replaced. You should consider having pickets replaced with a rot proof material such as pressure treated pine.
Landings	ОК

Exterior Wall Cladding and Trim

Material	Brick veneer with cement fiber siding and composite trim
Condition	ОК
Weep holes	OK. Weep holes are installed in accordance with generally accepted
	construction standards at the time this home was built.

Exterior Paint

Steel lintels over door and windows have a factory primer only and are beginning to corrode. Lintels should be painted with Rustoleum or another corrosion inhibitive coating to prevent rust and damage to the material.
Caulking is incomplete at the front and back doors and under windows on the bay on the deck. Caulking should be touched up as needed to prevent water penetration and damage to the home.

Foundation

Туре	Crawl space
Materials	Brick and concrete block
Condition	A hairline crack approximately 1/16" wide was found at the right side wall of the garage. It cannot be determined as part of a home inspection if movement has stabilized or will continue. The wall should be monitored and if significant movement is noted you should consult with a PE specializing in residential structural issues.
Piers or support columns	16" x 16" masonry piers
Crawl space access	Rear wall of the home
Method of inspection	Entered and inspected with a light and probe
Areas not entered	None
Positive drain/sump pump	Positive (gravity fed) drain installed
Moisture	 Standing water and evidence of extensive condensation was found in the crawl space, particularly at the center and right ends. Much of this has come from the backed up condensate drain at the air conditioner as noted in <u>Section 10</u> of this report and from the leaking shower as noted in <u>Section 7</u>. The concern is that this can cause wood rot and the growth of wood destroying fungus as noted below. Plumbing and condensate leaks should be repaired and the crawl space thoroughly dried by your builder or a qualified moisture control specialist. Efflorescence was found at the front wall of the garage, with a smaller amount down the right side. This may have come from overflowing gutters or a damaged irrigation sprinkler. Further investigation and repair is recommended by your builder.
Debris present	Clean

Floor Structure

Materials	Wood I-beam floor joists with 3/4" OSB subfloor
Condition	 Wood rot was found to sub flooring under the master bath shower, resulting from leaks noted in Section 7 of this report. Insulation should be removed and the floor structure under the shower evaluated and repaired or replaced as needed by your builder. Moderate to heavy organic growth was found on floor joists and girders in the center part of the crawl space. This is the result of excessive moisture levels under the house. Testing with a moisture meter found wood moisture levels between 18% at the crawl space access door to 30% under the living room. If left unrepaired high moisture levels and wood destroying fungus can result in significant damage to the home. Fungal growth should be removed by a qualified contractor after moisture problems have been resolved. If you have health concerns about mold you may want to consult with an environmental specialist.
Beams and Girders	LVL engineered wood beams
Anchoring	Anchor bolts

Wall Structure

Туре	Wood frame
Condition	Walls are covered with drywall and structural components could not
	be observed.

Ceiling and Roof Structure

Type or Style	Gable
Materials	2 x 8 rafters and ceiling joists with OSB decking and LVL girders and valley rafters
Condition	OK where observed
Attic access	Pull down stairs in the hall, scuttleholes in the right end bedroom (3), center front bedroom, left rear bedroom and bonus room. Weather stripping is missing at the bottom of the access door to the right rear attic space and all weather stripping is missing at the scuttlehole in the left front and left rear rooms; this should be replaced for energy conservation and comfort.
Flooring	Eave attic spaces are not floored, but are accessible to small children through the scuttleholes. The doors should be secured or locked to prevent access for child safety.
Method of inspection	The attic was inspected from floored areas only due to lack of a safe walkway
Areas not entered	Areas over the front porch and screen porch roof are closed and could not be entered

Decks or Patios

Material	Pressure treated wood with masonry piers
Condition	One screen panel is loose at the left rear corner of the porch; this
	should be secured to prevent insects from entering.
Flashing	N/A, the deck is installed over brick veneer and flashing is not required.
Railings	Several pickets and the bottom trim piece have rotted on the right side of the deck railings, and at least one picket has rotted on the right rear. Composite trim used on handrail posts has deteriorated near the ground. Rotted or damaged materials should be replaced by a professional carpenter. As an upgrade you should consider having all railings and pickets replaced with pressure treated wood or another rot proof material.
Steps	OK

General Comments, Exterior and Structural Components

Any alterations or repairs to the structure of the home should be designed by a Professional Engineer and performed by a licensed general contractor.

3. Roofing and Gutters

Roof Coverings

Materials	3 tab composite shingles with standing seam metal over the front porch and front brown roof
Condition	 Loose shingles were found at the low shed roof on the left rear where it meets the wall and at the top of the rear bay window. Loose shingles should be repaired or replaced by a professional roofer to prevent leaks and damage to the home. Water staining and evidence of a previous leak was found over the front porch. A section of the valley at the right front of the porch has been caulked, but caulking does not extend to the downspout directly above. This should be reviewed by a professional roofer and repaired as needed to prevent leaks. OK where observed
Effective age	5-10 years
Flashing	OK where observed
Evidence of leaks	None
Method of inspection	Observed from windows and from the ground with binoculars
Areas not observed	The low sloping shed roof on the rear could not be observed from the ground due to vegetation.
Skylights	None
Clearance from vegetation	ОК
Previous repairs	The valley at the right front of the porch has been partially caulked.

Gutters and Drainage

Materials	Aluminum
	Gutters are clogged with leaves. Gutters should be cleaned for proper
	drainage to help keep roof water away from the foundation.
Splash blocks	ОК
Drain pipes	OK where observed

General Comments, Roofing and Drainage

None

4. Insulation, Ventilation and Vapor Barriers

Insulation

Foundation /floor system	R-19 Fiberglass batts. Crawl space insulation is wet and hanging down, and insulation has fallen out of place at the center rear. Wet insulation should be removed and replaced to prevent organic growth and fallen or missing insulation reinstalled for energy conservation and comfort.
Exterior walls	R-13 Fiberglass batts according to the insulation certificate. Insulation on the left side eave attic space off the bonus room has been damaged, apparently by animals. Damaged insulation should be repaired or replaced.
Attic	R-30 Fiberglass batts where observed

Ventilation

Crawl space	Only one vent is installed across the front wall, and one vent is installed on the right end wall. This creates a dead air space at the right and center of the crawl space conducive to problems with condensation and fungal growth. Crawl space venting should be evaluated by a qualified professional or building science specialist and repaired according to his or her recommendations.
Attic	Continuous ridge and soffit ventilation
Bath venting	The fan in the master bath is apparently not venting out and pulls air in on one side and blows out on the other. This should be investigated by your builder and repaired as needed for proper operation.
Laundry venting	OK where observed

Vapor Barriers

Crawl space	Approximately 95% coverage, OK
Other	None noted

5. Interiors

Exterior Doors

Condition	ОК
Locks	ОК
Weather stripping	A sweep is not installed on the bottom of the front door, leaving a 3/8" wide crack where cold air and insects can enter. This should be repaired by your builder before completion.
Chimes	The pushbutton at the front door is broken and the doorbell did not function when tested. Chimes should be repaired by an electrician and the pushbutton replaced.
Screens	ОК

Interior Doors

Condition	ОК
	Locks are inoperative or do not lock on the door from the buddy bath to the toilet area. The lock should be repaired or replaced for privacy.
Stick/don't catch	None

Windows

Туре	Double hung vinyl insulated glass windows
Lost seals noted	None
Condition	The top sash of the left rear bay window on the second floor is very sticky and does not close. The counterbalance spring is disconnected on the top sash of the right front master bedroom closet window and can permit it to fall. Windows should be repaired by your builder before completion.
Weather stripping	ОК
Screens	Screens are missing at the left of the living room bay, at the master bath toilet closet window and at most upstairs windows. Missing screens should be replaced to permit windows to be used in warm weather. No screens are installed on front windows.

Walls and Ceilings

Materials	Drywall
Conditions	Cracking and evidence of possible movement was found at the front wall of the right end bedroom, over the door to the left closet in the left front bedroom and at the corners of the bay window in the rear. No signs of foundation movement were found. Drywall should be repaired and the areas monitored for evidence of future movement. If significant movement is noted you should consult with your builder or a PE immediately.
Areas not observed	None

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Floor Coverings

Carpet	OK where observed
Wood or laminate	OK where observed
Vinyl/Tile	OK where observed

Interior Stairways

Stairs	ОК
Railings	ОК
Balconies or landings	ОК

General Comments, Interiors

None

6. Garage

Floor

Condition	OK where observed.

Garage Doors and Openers

Condition Weather stripping	ОК ОК
Openers	The rear door reverses spontaneously when the opener is used and can only be closed by disconnecting it from the opener. The door and opener should be repaired as needed for proper operation by a garage door professional.
Photo sensors	ОК
Auto reverse	The front garage door did not reverse on a 1 ½" obstruction when tested. The closer should be adjusted by a garage door professional for child safety.

General Comments, Garage

None

7. Kitchen Appliances and Cabinetry

Cabinets

 Grout has cracked loose between the granite top and tile backsplash to
the right of the sink. Cracks between dissimilar materials should be
caulked to prevent water penetration and damage to the cabinets.

Appliances

Range or cooktop	ОК
Range hood and venting	Pop up, vented, OK
	The front control panel comes loose and the oven will not stay on for longer than about 1 minute. The oven should be investigated and repaired for proper operation by a professional appliance repair technician.
Dishwasher	ОК
Disposal	ОК
Other	Microwave oven, refrigerator, OK.

General Comments, Kitchen Appliances and Cabinetry

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8. Plumbing

Water Service

Public or private Water supply (functional flow)	Community water system OK	
Water Distribution Line	S	\uparrow

Туре	PEX plastic	
Condition	OK where observed	
Location of main shutoff	In the master bedroom closet	

Waste Lines and Venting

Туре	PVC plastic
Condition	OK where observed
-	Community waste disposal system. A holding tank and grinder are installed in the left side yard. You should be aware that this may require periodic maintenance by a plumbing contractor.

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Water Heaters (2)

Location	Crawl space
Fuel type	Electric
Manufacturer and age	2- Rheem model 82SV50-2 manufactured 2004
Condition	ОК
Capacity	50 gallons each, 100 gallons total
Water temperature	Water temperature measured 115 degrees at the kitchen sink, OK
Venting and combustion air	N/A, these are electric water heaters
Clearance from earth/floor	ОК
Pressure release	Installed
Fuel lines	Electric

Outside Faucets

Location	Front, side and rear walls
	The handle has been removed on the left end faucet; this should be replaced to allow the faucet to be used.
Frost proof?	Yes

Sinks and Lavatories

Kitchen	 Water flow was slow and restricted, even after cleaning the aerator. The supply lines and faucet should be checked by a plumber and repaired for a better water flow. The faucet leaks around the base when pushed to the right or left. This should be repaired by a plumber to prevent damage to the home.
Utility sinks	ОК
Bath 1 (1/2 bath)	ОК
Bath 2 (master bath)	ОК
Bath 3 (upstairs hall bath)	ОК
Bath 4 (left rear buddy bath)	ОК
Bath 5 (left front bedroom)	ОК

Toilets

cutoff valve on the toilet leaks. The valve was shut off after testing. should be repaired by a plumber to prevent damage to the home.
should be repaired by a plumber to prevent damage to the nome.

Tubs and Showers

Bath 1 (1/2 bath)	N/A
Bath 2 (master bath)	 The shower pan is leaking into the crawl space. This has damaged subflooring and can cause significant structural damage to the home if left unrepaired. The pan should be repaired as needed by a plumber to prevent further damage to the structure of the home. Sprayer heads are missing on the body shower heads. These should be replaced by your builder to permit them to be used as intended. Grout is missing in the shower base. When the shower is repaired your builder should be sure the tile is properly grouted and caulked at inside corners to help prevent leaks. Caulking has broken loose at the right end of the tub, permitting water to leak through onto the pump if splashed up against the wall. Caulking should be repaired before completion.
Bath 3 (upstairs hall bath)	ОК
Bath 4 (left rear buddy bath)	ОК
Bath 5 (left front bedroom)	ОК

General Comments, Plumbing

An irrigation system is installed in the yard with controls on the right end wall. A few of the sprinkler heads appeared to be damaged, all zones could not be operated and a vacuum breaker was not located. The irrigation system should be investigated and repaired by your builder and it verified that a vacuum breaker is in place to prevent the possibility of pulling dirty water back into the potable water system.

9. Electrical

Electrical Service

Service entry location	Left side wall by the garage door
Service material	4/0 copper
Overhead or underground?	Underground
System ground	Grounded to a driven electrode. Connections are buried and could not
	be observed.

Main Panel and Disconnect # 1

Location	At the service entry on the left side wall
Service amperage	400 amps (2- 200 amp disconnects)
Voltage	120/240
# 240-volt circuits	2
# 120-volt circuits	0
Circuits labeled?	This is a service disconnect only

LocationRear wall of the garage, to the leftAmperage200 ampsVoltage120/240Grounds/neutrals separate?Yes# 240-volt circuits6# 120-volt circuits13, including 2 arc fault breakers that tripped when testedCircuits labeled?Yes

Secondary Distribution Panel #1

Secondary Distribution Panel #2

Location	Rear wall of the garage, to the right
Amperage	200 amps
Voltage	120/240
Grounds/neutrals separate?	Yes
# 240-volt circuits	5
# 120-volt circuits	9, including 1 arc fault breaker that tripped when tested
Circuits labeled?	Yes

Branch Circuits

Wiring method	NM (non metallic) or Romex cable
Any single strand aluminum	240 V oven circuit only
used?	
Location GFCIs	Kitchen (2), garage, ½ bath, upstairs front bath
GFCI tests	ОК
Outlets grounded?	All accessible outlets were grounded.
Polarity correct?	OK where observed

Electrical Fixtures

Lighting fixtures	All but one kitchen recessed lights did not work when tested and two
	lights are out over the upstairs buddy bath. Replace the bulbs and test.
	If they do not function an electrician may be required.
Ceiling fans	ОК

Smoke and Carbon Monoxide Detectors

Smoke detectors	Halls within 15' of bedroom doors, inside bedrooms, on each level of
	the home, linked
Power source	120-volt with battery backup
Functional?	Smoke detectors operated with the factory test function when checked.
	A carbon monoxide detector is not installed in the home. With three gas
	fireplaces in the house, installation of carbon monoxide detectors in
	bedrooms of the home is strongly recommended as a combustion
	safety upgrade.

General Comments, Electrical

Unidentified "mystery switches" were found at the two gang switch to the left of the front door. Ask the sellers or an electrician to identify their use.

Any repairs or alterations to the homes electrical system should be done by a licensed electrical contractor.

10. Heating and Air Conditioning

HVAC System # 1

Туре	Heat pump
Location of controls	First floor hall
Location furnace/air handler	Crawl space
Brand	Bryant model FX4BNF48, manufactured 2004
Safety devices	Circuit breaker(s)
Distribution	Forced air, insulated ducts
Condensing unit location	Rear wall
Brand	Bryant model 6333GJX048-A manufactured 2004
Capacity	4 tons
Filters	OK. Filters should be changed regularly, usually every 30-60 days or
	whenever they appear dirty.

HVAC System # 2

Туре	Heat pump
Location of controls	Second floor hall
Location furnace/air handler	Attic
Brand	Carrier model FXfBNF036, mfg. 2004
Safety devices	Circuit breaker(s), condensate pan float switch
Distribution	Forced air, insulated ducts
Condensing unit location	Right side wall, to the rear
Brand	Bryant model 633GJ036-A, manufactured 2004
Capacity	3 tons
Filters	The middle bedroom ceiling filter is dirty and in need of replacement.
	Filters should be replaced regularly, at least every 30-60 days or
	whenever they appear dirty in order to preserve the life and efficiency
	of the system.

Installed heat and cooling source for all habitable spaces

Yes

Gas or Fuel Lines

Туре	Ductile iron and CSST (Corrugated Stainless Steel Tubing)
Condition	OK where observed
Location of meter and cutoff	At the LP tank in the left rear yard

Fireplaces or Solid Fuel Heating Equipment

Туре	3 vented gas log fireplaces
Condition	ОК
Gas logs	ОК

Chimneys or Flues

Туре	Metal flue
Condition	OK where observed.
Chimney cap/spark arrestor	ОК

General Comments, Heating and Air Conditioning

The condensate drain from the first floor system is clogged and is backing up large amounts of water into the cabinet and into the crawl space. This is a major cause of high moisture levels found under the house. Condensate lines and the air handler should be cleaned to allow proper drainage. Cooling drop (Δ T) measured 20 degrees on Unit 1and 21 degrees on unit 2, good. Normal operating ranges are from 15-22 degrees. Heat was tested on emergency heat settings only due to hot weather. Any repairs or alterations to the heating or air conditioning systems should be done by a licensed heating and air conditioning contractor.

Thank you,

Ford f. Hend

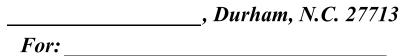
Fred J. Herndon

11. Summary of Recommended Repairs

Fred Herndon Home Inspections, Inc.

Phone: 919-405-2220, N.C. Home Inspector's license # 322

Note: This summary page is not the entire report. The complete report may include additional information of interest or concern to you. It is strongly recommended that you promptly read the complete report. For information regarding the negotiability of any item in this report under the real estate purchase contract, contact your North Carolina real estate agent or an attorney.



Friday, August 17, 2012

These are items not functioning as intended, posing a safety concern, warranting further investigation by a specialist or subsequent observation.

1. Grading

Slope from foundation: Reversed grade was noted along the right front wall where fill has settled, permitting surface water to drain against the foundation. This can result in crawl space water intrusion and uneven settlement. Grading should be repaired to permit surface water to drain away from the home.

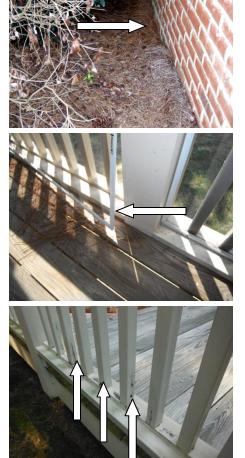
2. Exterior Stairs

Handrails: The bottoms of pickets on the front step railings are beginning to deteriorate. Any rotted wood should be replaced. You should consider having pickets replaced with a rot proof material such as pressure treated pine.

3. Decks or Patios

Condition: One screen panel is loose at the left rear corner of the porch; this should be secured to prevent insects from entering.

Railings: Several pickets and the bottom trim piece have rotted on the right side of the deck railings, and at least one picket has rotted on the right rear. Composite trim used on handrail posts has deteriorated near the ground. Rotted or damaged materials should be replaced by a professional carpenter. As an upgrade you should consider having all railings and pickets replaced with



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pressure treated wood or another rot proof material.

4. Exterior Paint

Condition: Steel lintels over door and windows have a factory primer only and are beginning to corrode. Lintels should be painted with Rustoleum or another corrosion inhibitive coating to prevent rust and damage to the material.

Caulking/sealing:

Caulking is incomplete at the front and back doors and under windows on the bay on the deck. Caulking should be touched up as needed to prevent water



penetration and damage to the home.

5. Foundation

Condition: A hairline crack approximately 1/16" wide was found at the right side wall of the garage. It cannot be determined as part of a home inspection if movement has stabilized or will continue. The wall should be monitored and if significant movement is noted you should consult with a PE specializing in residential structural issues.

Moisture:

1. Standing water and evidence of extensive condensation was found in the crawl space, particularly at the center and right ends. Much of this has come from the backed up condensate drain at the air conditioner as noted in <u>Section 10</u> of this report and from the leaking shower as noted in <u>Section 7</u>. The concern is that this can cause wood rot and the growth of wood destroying fungus as noted below. Plumbing and condensate leaks should be repaired and the crawl space thoroughly dried

by your builder or a qualified moisture control specialist. 2. Efflorescence was found at the front wall of the garage, with a smaller amount down the right side. This may have come from













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overflowing gutters or a damaged irrigation sprinkler. Further investigation and repair is recommended by your builder.

6. Floor Structure

Condition: 1. Wood rot was found to sub flooring under the master bath shower, resulting from leaks noted in Section 7 of this report. Insulation should be removed and the floor structure under the shower evaluated and repaired or replaced as needed by your builder.

2. Moderate to heavy organic growth was found on floor joists and girders in the center part of the crawl space. This is the result of excessive moisture levels under the house. Testing with a moisture meter found wood moisture levels between 18% at the crawl space access door to 30% under the living room. If left unrepaired high moisture levels and wood destroying fungus can result in significant damage to the home. Fungal growth should be removed by a qualified contractor after moisture problems have been resolved. If you have health concerns about mold you may want to consult with an environmental specialist.

7. Ceiling and Roof Structure

Attic access: Pull down stairs in the hall, scuttleholes in the right end bedroom (3), center front bedroom, left rear bedroom and bonus room.

Weather stripping is missing at the bottom of the access door to the right rear attic space and all weather stripping is missing at the scuttlehole in the left front and left rear rooms; this should be replaced for energy conservation and comfort.

Flooring: Eave attic spaces are not floored, but are accessible to small children through the scuttleholes. The doors should be secured or locked to prevent access for child safety.

8. Roof Coverings

Condition: 1. Loose shingles were found at the low shed roof on the left rear where it meets the wall and at the top of the rear bay window. Loose shingles should be repaired or replaced by a professional roofer to prevent leaks and damage to the home.

2. Water staining and evidence of a previous leak was found over the front porch. A section of the valley at the right front of the porch has been caulked, but caulking does not extend to the downspout directly above. This should be reviewed by a professional roofer and repaired as needed to prevent leaks.



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9. Gutters and Drainage

Condition: Gutters are clogged with leaves. Gutters should be cleaned for proper drainage to help keep roof water away from the foundation.

10. Insulation

Foundation /floor system: R-19 Fiberglass batts. Crawl space

insulation is wet and hanging down, and insulation has fallen out of place at the center rear. Wet insulation should be removed and replaced to prevent organic growth and fallen or missing insulation reinstalled or replaced for energy conservation and comfort.

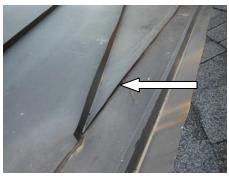
Exterior walls: R-13 Fiberglass batts according to the insulation certificate. Insulation on the left side eave attic space off the bonus room has been damaged, apparently by animals.

Damaged insulation should be repaired or replaced.

11. Ventilation

Crawl space: Only one vent is installed across the front wall, and one vent is installed on the right end wall. This creates a dead air space at the right and center of the crawl space conducive to problems with condensation and fungal growth. Crawl space venting should be evaluated by a qualified professional or building science specialist and repaired according to his or her recommendations.

Bath venting: The fan in the master bath is apparently not venting out and pulls air in on one side and blows out on the other. This should be investigated by your builder and repaired as needed for proper operation.











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12. Exterior Doors

Weather stripping: A sweep is not installed on the bottom of the front door, leaving a 3/8" wide crack where cold air and insects can enter. This should be repaired by your builder before completion.

Chimes: The pushbutton at the front door is broken and the doorbell did not function when tested. Chimes should be repaired by an electrician and the pushbutton replaced.

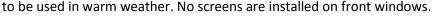
13. Interior Doors

Locks: Locks are inoperative or do not lock on the door from the buddy bath to the toilet area. The lock should be repaired or replaced for privacy.

14. Windows

Condition: The top sash of the left rear bay window on the second floor is very sticky and does not close. The counterbalance spring is disconnected on the top sash of the right front master bedroom closet window and can permit it to fall. Windows should be repaired by your builder before completion.

Screens: Screens are missing at the left of the living room bay, at the master bath toilet closet window and at most upstairs windows. Missing screens should be replaced to permit windows



15. Walls and Ceilings

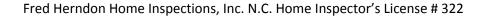
Conditions: Cracking and evidence of possible movement was found at the front wall of the right end bedroom, over the door to the left closet in the left front bedroom and at the corners of the bay window in the rear. No signs of foundation movement were found. Drywall should be repaired and the areas

monitored for evidence of future movement. If significant movement is noted you should consult with your builder or a PE immediately.

16. Garage Doors and Openers

Openers: The rear door reverses spontaneously when the opener is used and can only be closed by disconnecting it from the opener. The door and opener should be repaired as needed for proper operation by a garage door professional.







Auto reverse: The front garage door did not reverse on a 1 ½" obstruction when tested (see photo above). The closer should be adjusted by a garage door professional for child safety.

17. Cabinets

Condition: Grout has cracked loose between the granite top and tile backsplash to the right of the sink. Cracks between dissimilar materials should be caulked to prevent water penetration and damage to the cabinets.

18. Appliances

Wall ovens: The front control panel comes loose and the oven will not stay on for longer than about 1 minute. The oven should be investigated and repaired for proper operation by a professional appliance repair technician.

19. Outside Faucets

Condition: The handle has been removed on the left end faucet; this should be replaced to allow the faucet to be used.

20. Sinks and Lavatories

Kitchen:

1. Water flow was slow and restricted, even after cleaning the aerator. The supply lines and faucet should be checked by a plumber and repaired for a better water flow.

2. The faucet leaks around the base when pushed to the right or left. This should be repaired by a plumber to prevent damage to the home.

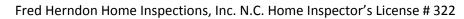
21. Toilets

Bath 4 (left rear buddy bath): The cutoff valve on the toilet leaks. The valve was shut off after testing. This should be repaired by a plumber to prevent damage to the home.

22. Tubs and Showers

Bath 2 (master bath): 1. The shower pan is leaking into the crawl space. This has damaged subflooring and can cause significant structural damage to the home if left unrepaired. The pan should be repaired as needed by a plumber to prevent further damage to the structure of the home.

2. Sprayer heads are missing on the body shower heads. These should be replaced by your builder to permit them to be used





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as intended.

 Grout is missing in the shower base. When the shower is repaired your builder should be sure the tile is properly grouted and caulked at inside corners to help prevent leaks.
 Caulking has broken loose at the right end of the tub, permitting water to leak through onto the pump if splashed up. Caulking should be repaired before completion.

23. General Comments, Plumbing

An irrigation system is installed in the yard with controls on the right end wall. A few of the sprinkler heads appeared to be damaged, all zones could not be operated and a vacuum breaker was not located. The irrigation system should be investigated and repaired by your builder and it verified that a vacuum breaker is in place to prevent the possibility of pulling dirty water back into the potable water system.





24. Electrical Fixtures

Lighting fixtures: All but one kitchen recessed lights did not work when tested and two lights are out over the upstairs buddy bath. Replace the bulbs and test. If they do not function an electrician may be required.

25. General Comments, Electrical

Unidentified "mystery switches" were found at the two gang switch to the left of the front door. Ask the sellers or an electrician to identify their use.

Any repairs or alterations to the homes electrical system should be done by a licensed electrical contractor.

26. HVAC System # 2

Filters: The middle bedroom ceiling filter is dirty and in need of replacement. Filters should be replaced regularly, at least every 30-60 days or whenever they appear dirty in order to preserve the life and efficiency of the system.

27. General Comments, Heating and Air Conditioning

The condensate drain from the first floor system is clogged and is backing up large amounts of water into the cabinet and into the crawl space. This is a major cause of high moisture levels found under the house. Condensate lines and the air handler should be cleaned to allow proper drainage.

Cooling drop (Δ T) measured 20 degrees on Unit 1and 21 degrees on unit 2, good. Normal operating ranges are from 15-22 degrees. Heat was tested on emergency heat settings only due to hot weather.



Any repairs or alterations to the heating or air conditioning systems should be done by a licensed heating and air conditioning contractor.



Thank you,

Find f. Hen

Fred J. Herndon