property into compliance with current code requirements. Rather, the standard of our inspections is a **performance standard** to determine if the items inspected are functioning at the time of the inspection, or are in need of repair. This is particularly applicable to Home Warranty policies, where the standards of the Home Warranty service company are often different than our stated performance standard for judging whether a piece of equipment is functional or in need of repair. If you intend to rely on a Home Warranty policy, then it is recommended that you contact the appropriate service companies for a more in-depth analysis of what may be required to meet their standards should a claim be made against the policy.
>If there are any questions or concerns please contact Hedderman Engineering, Inc. at 281-355-9911 or Office@HeddermanEngineering.com.

I. STRUCTURAL SYSTEMS

☐ ☒ ☐ ☐ **A. Foundation**
Comments:

☐ ☒ ☐ ☐ **B. Grading and Drainage**
Comments:

☐ ☒ ☐ ☐ **C. Roof Covering Materials**
Comments:

☐ ☒ ☐ ☐ **D. Roof Structures & Attics**
Comments:

☐ ☒ ☐ ☐ **E. Walls (Interior and Exterior)**
Comments:

☐ ☒ ☐ ☐ **F. Ceilings and Floors**
Comments:

☐ ☒ ☐ ☐ **G. Doors (Interior and Exterior)**
Comments:

☐ ☒ ☐ ☐ **H. Windows**
Comments:

☐ ☒ ☐ ☐ **I. Stairways (Interior and Exterior)**
Comments:

☐ ☒ ☐ ☐ **J. Fireplaces and Chimneys**
Comments:

☐ ☒ ☐ ☐ **K. Porches, Balconies, Decks and Carports**
Comments:

The structural portions of this property were inspected by an engineer from Hedderman Engineering Inc. per the inspection agreement between this firm and our client. All comments regarding the structure and property grade are found in the structure report that is created and provided by the engineers at Hedderman Engineering Inc.

According to HAR, the house was built in 1968.

Orientation - House Facing East:
For the purpose of the inspection, North is considered to be the right side of the house.

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

II. ELECTRICAL SYSTEMS

☒ ☐ ☐ ☒ **A. Service Entrance and Panels**

Comments:

Electrical System Description:

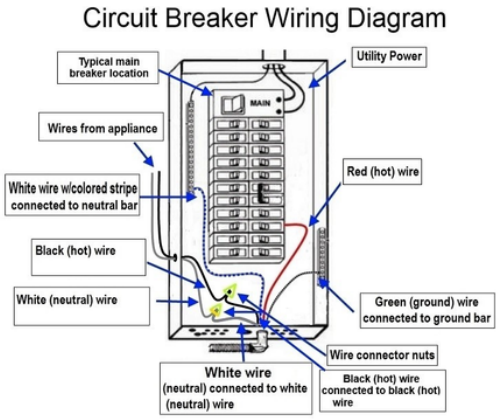
The electrical service is provided by a 120/240 volt, single-phase. It is pointed out that the breaker panel includes two houses where each side is for a different house and is under the HOA. No main breaker or electric meter was visible.

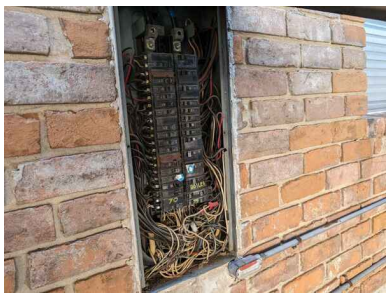
Electrical Wiring Information

Service Wires	Branch Circuit Wires	Grounded or Ungrounded System
copper	copper and aluminum	grounded and ungrounded

Breaker Panel Information

Location	Manufacturer	Rating - Amps
Garage behind the house	Square D	Not visible





Breakers - Routine Check:

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

It is a general recommendation that all circuit breakers be tripped off and on at least once a year to ensure that they are still physically able to trip off. Occasionally, the points on a breaker will fuse to the main bus in the panel, preventing the breaker from tripping off, even if there is an overload on the circuit. If this condition occurs, it can be a fire hazard.

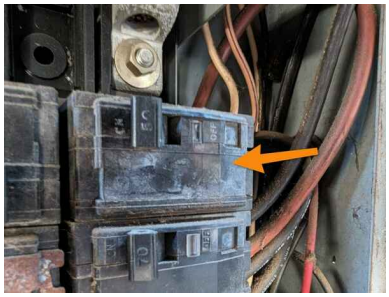
AFCI Breakers Not Present - Home built pre-AFCI:
The breaker panel(s) did not contain any Arc Fault Circuit Interrupters (AFCI). This is an "as-built" condition, that does not meet current building code standards. AFCI devices are intended to protect against fires caused by electrical arcing in the wiring, by shutting off the power to the circuit when an electrical arc is detected in the circuit. Homes built prior to 2002 were not required by the National Electrical Code (NEC) to be protected by AFCI devices. Since this home was built prior to 2002, the breaker panel is not required to be retrofitted with new AFCI breakers. If adding AFCI breakers is desired, it is recommended that you contact an electrician for further information.

Breaker panel legend:
The circuit breakers were labeled to identify the circuits they were protecting. We did not trip off every breaker and trace out every circuit and, therefore, could not verify the accuracy of the labeling. If further investigation is desired, it is recommended that an electrician be contacted.

1: Breakers Oversized - A/C condensing unit

The circuit breakers for air conditioning condensing unit was rated higher than the maximum size allowed by the manufacturer of the condensing unit. The breakers should be replaced by the size listed on the manufacturer's nameplates located on the condensing unit.

Obtain Cost Estimate



☒ ☐ ☐ ☒ **B. Branch Circuits, Connected Devices, and Fixtures**

Type of Wiring: Copper, Aluminum -
Comments:

Ceiling Fans - Functional :
No items that were in need of repair were observed for the operation of the ceiling fan(s) at the time of the inspection.

Aluminum Wiring - Retrofit Present: CO/ALR devices were observed -
Aluminum 120-volt wiring was in use for some or all of the light switch and outlet circuits. A random check of the switches and outlets in the house showed that copper pigtails and/or CO/ALR devices for aluminum wiring have been installed. It is pointed out that only a random sampling of the switches and outlets was checked and we did not check every switch or outlet for the retrofit. For safety reasons, it is recommended that you have an electrician check every connection to ensure that an approved retrofit has been properly installed.

Further investigation is recommended

Outlets - Some inaccessible:

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

Some of the receptacle outlets in the home were inaccessible and could not be reached for inspection due to furniture, heavy storage items, personal effects, or conditions outside the control of the inspector.

Low Voltage Systems - Not inspected:
It is pointed out that low voltage systems, low voltage wiring, and low voltage connections were not included in the scope of the inspection and were not checked, including: audio/visual systems, alarm systems, data lines, and phone lines. If further investigation is desired, it is recommended that a service company be contacted.

Smoke and Carbon Monoxide Detectors:
We could not determine if the smoke and/or carbon monoxide detectors are connected to the security alarm system as is common practice, therefore, to avoid triggering the security alarm we did not operationally check each device. Further investigation is recommended with a service company who specializes in this field to determine if the devices are interconnected as currently required and functioning properly. For safety purposes, it is recommended that smoke detectors and carbon monoxide detectors be replaced every ten years. Further investigation is recommended.

1: GFCI - Missing at outlet

Kitchen counter tops, Bathrooms -

A GFCI device was not installed at one or more locations that are currently required to have GFCI protection. It is recommended that an electrician install GFCI devices at all of the currently required locations.

Obtain Cost Estimate

Recommendation: Contact a qualified professional.

2: Outlet - Ungrounded

Hall Bath Kitchen

A three prong outlet that was not grounded properly was observed and the outlet needs to be repaired. It is recommended that an electrician be contacted to repair the outlet in an approved manner.

Obtain Cost Estimate

3: Light Fixture - Missing

Master Bedroom

A light fixture was missing.

Obtain Cost Estimate

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

4: Light Fixture - Missing bulb
Master Bedroom
A light fixture was observed that had a missing bulb.
Obtain Cost Estimate

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

III. HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

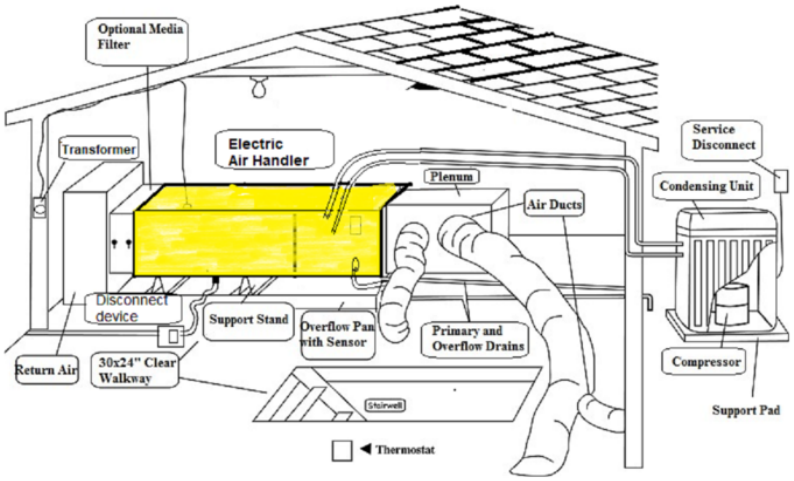
☒ ☐ ☐ ☐ **A. Heating Equipment**

Comments:
Type of System: Forced Air
Energy Sources: Electric

It is pointed out that our inspection of the air conditioning and heating system(s) is a limited, visual inspection in accordance with the TREC SOP, where we check the equipment as it has been installed to determine whether or not the system(s) is cooling and/or heating at the time of the inspection. Our inspection is a cursory inspection of the apparent function, as we do not determine the sizing, adequacy, or design of any component in the system, or the compatibility of the individual components, nor the installation of the system(s) to be in conformity to the latest building code requirements. If you desire an in-depth analysis of the HVAC system(s) by a qualified service technician using specialized diagnostic equipment, then it is recommended that a service company be contacted to analyze the system(s). This is particularly important if the system(s) is an older system and has only a limited amount of remaining life due to its age and/or condition.

Electric Air Handler Description:
The heating for the property was provided by the following electric heating equipment:

ZONE	BRAND	DATE	LOCATION
House	Goodman	1997	Hallway closet



Electric Heat - Functional:

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

The electric heating equipment was observed to be operating and functional at the time of the inspection. The electric heating equipment was heating the air 25+ degrees, which is adequate.

☒ ☐ ☐ ☒ **B. Cooling Equipment**

Comments:
Type of System: Split system

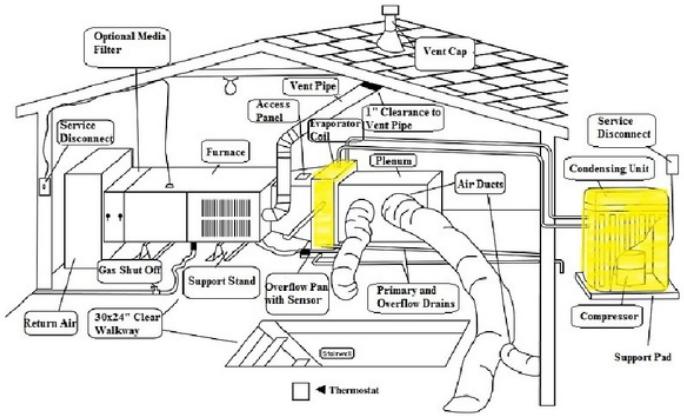
The inspection of the HVAC system is cursory in nature in accordance with the TREC SOP. We measure the temperature drop (ΔT) across the indoor coil(s) at the time of the inspection and our observations have been recorded in this report. It is pointed out that our measurements of the cooling performance of the equipment is only at a "point in time", and cannot reflect whether the equipment has been recently serviced, or what the future performance of the equipment will be after the day of the inspection. Further investigation with the homeowner is recommended to determine when the equipment was last serviced. It is pointed out that an HVAC license is required to check the refrigerant pressures for the A/C equipment, therefore the refrigerant pressure was not checked during the inspection.

A/C Equipment Description :

The type of air conditioning for the property is a forced air split system. The cooling equipment for the property was as follows:

It is pointed out that the Ac was not checked at the time of the inspection and we could not determine which of the two condensing units at the rear of the house correspond to the house. Check with HOA to determine which condensing unit is correct. The following description is for the two units present.

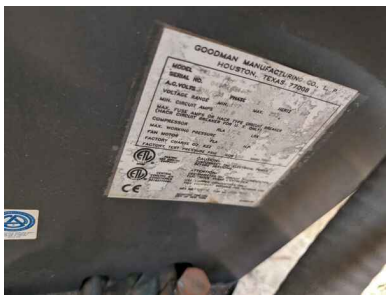
	CONDENSING UNIT			EVAPORATOR COIL		TEMP DELTA
ZONE	BRAND	TONS	DATE	TONS	DATE	
House	Goodman	2.5 3	2002 2004	3	1997	N/A



I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

right side



left side

Limited Life:
Due to the age and/or condition of the equipment, it is our opinion that the equipment has only a limited amount of life remaining. It would be a prudent to have the equipment thoroughly checked by a licensed air conditioning service company and further investigation is recommended.

1: Outside Temp Below 60 - A/C not operated

The ambient outside temperature was below 60 degrees, so only a visual inspection of the equipment was performed at this time. It is pointed out that serious damage can result to the compressor if operated at temperatures below 60 degrees and the compressor will not lubricate properly at lower temperatures. It is recommended that a service company be contacted on a warmer day to determine if the equipment is performing adequately, or if the equipment needs to be charged, cleaned and/or serviced.

2: Condesning unit - disconnect missing

An electrical disconnect device was not installed at the equipment. It is recommended that an electrical disconnect device be installed to allow the power to be turned off to the equipment for service or in the event of an emergency.
Obtain Cost Estimate

Recommendation: Contact a qualified professional.

☒ ☐ ☐ ☒ **C. Duct Systems, Chases, and Vents**

Duct Work - Acceptable:
The ductwork appeared to be in good condition at the time of the inspection and air was blowing out of each of the registers. The airflow may need to be adjusted in each room to meet your specific needs.

Return Air - Acceptable :
The return air system in the house had no visible items that were in need of repair and appeared to be performing as intended at the time of the inspection.

1: Air filters - Dirty

The filters were dirty and need to be replaced. Dirty filters can allow the evaporator coils to become dirty along with the ductwork systems, which can affect the performance of the systems.
Obtain Cost Estimate

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

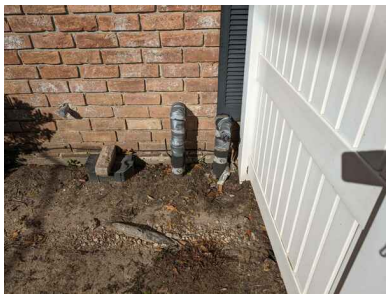
IV. PLUMBING SYSTEMS

☒ ☐ ☐ ☒ **A. Plumbing Supply, Distribution Systems, and Fixtures**

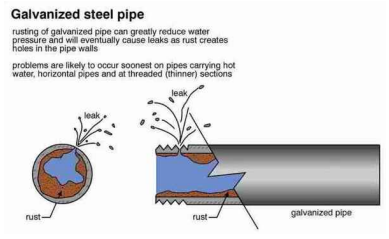
Comments:
Location of water meter: Not visible
Location of main water supply valve: downstairs left side
Static water pressure reading: not measured
Water Supply Material: galvanized steel

A plumbing system typically consists of three major components, including the potable water supply piping; the waste or drain piping; and the plumbing fixtures. The distribution piping brings the water from the public water main or a private well to the individual fixtures throughout the property. The water distribution system is under pressure, usually from 40 psi to 70 psi. The waste or drain piping carries the waste water and products underground to the sewer system or septic tank, and the waste piping is not under pressure, but operates by gravity flow. We typically run water down the drains from the sinks, tubs, showers, and toilets, but this cannot simulate the waste flow characteristics of full occupancy. There may be partial blockage of the underground waste lines from debris, broken pipes, or tree roots that cannot be detected by a visual inspection. If you desire a more in-depth inspection, it is recommended that you contact a qualified plumber.

Main Water Shut Off Valve Location: Front -
The main shut-off valve for the water line service piping is intended to provide a means to disconnect the water service to the structure/property.


Unable to detect which one is for the house

Water Supply Piping - Galvanized Steel:
All or portions of the water piping for the property was observed to be the original galvanized piping. It is pointed out that the galvanized piping will deteriorate with time, and will corrode on the inside of the piping, thereby reducing the inside diameter of the pipe, and restricting the flow of the water through the pipe. In addition, the piping will corrode through to the outside of the pipe and will eventually deteriorate to where the pipe will start leaking. It can be anticipated that the galvanized water piping throughout the house will need to be replaced when it is causing reduced water pressure or is corroded enough to start leaking.



1: Faucet - Drip leaking
Kitchen
A drip leak that needs to be repaired was observed at a faucet.
Obtain Cost Estimate

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

2: Shut Off Valve - Missing handle

Master Bath

The handle for a water shut-off valve was missing.

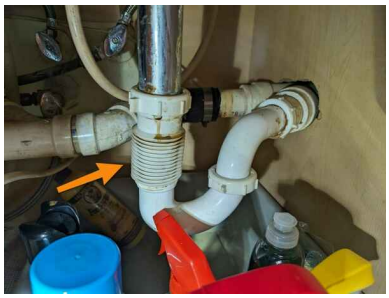
Obtain Cost Estimate

3: Bellows Drain Piping

Kitchen Master Bath Bathroom

Bellows piping was used on a portion of the drain piping. In the plumbing industry the use of bellows piping is considered amateur workmanship as bellows piping is prone to frequent clogs. Consideration should be given to replacing the Bellows piping.

Obtain Cost Estimate



4: Valve Handle loose

The valve handle was loose and needs to be secured at the faucet.

Obtain Cost Estimate

Recommendation: Contact a qualified professional.

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

5: Water Stains/Damage Under Sink
Bathroom
Evidence of a previous leak was visible under a sink, where water stains/damage were visible at the bottom of the cabinet. No leaks were visible at the time of the inspection**.**
Further investigation is recommended.

6: Toilet - Fill valve leaking
The toilet fill valve was leaking inside the toilet tank and is in need of replacement. A leaking fill valve will allow cross contamination in the freshwater supply.
Obtain Cost Estimate

7: Tub/Shower - Water leaks past diverter
Bathroom
The diverter valve was leaking water past the valve when the valve was turned to the shower.
Obtain Cost Estimate

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

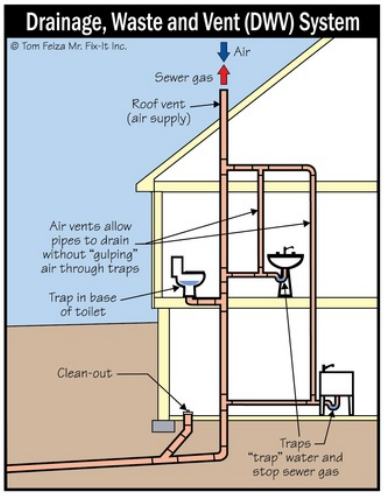
8: Shower/Tub - Shower head clogged
Bathroom Master Bath
The shower head was significantly clogged and needs to be cleaned/replaced.
Obtain Cost Estimate

☒ ☐ ☐ ☐ **B. Drains, Wastes, and Vents**
Sewer Piping Material: PVC, Appears to be steel -
Comments:

Sewer System - Functional:
No evidences of a system wide problem were observed when the system was operationally checked by running water through each of the plumbing fixtures during the duration of the inspection. It is noted that most of the drain waste system in the walls, under the floors, and in the ceilings is not visible. If further investigation is desired, it is recommended that a plumber be contacted to perform an in depth survey with a camera or hydrostatic test.

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

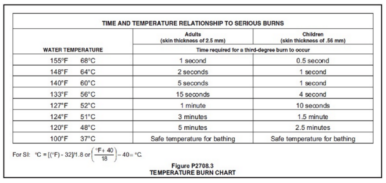
I	NI	NP	D



☒ ☐ ☐ ☐ **C. Water Heating Equipment**

Comments:
Energy Source: Electric
Capacity: not visible

Hot water - Temperature:
The generally recommended maximum temperature setting for a hot water heater, to prevent accidental scalding, is 120-125 degrees. It is recommended that the water heater thermostat be adjusted to and maintained in this temperature range.



TIME AND TEMPERATURE RELATIONSHIP TO SERIOUS BURNS

WATER TEMPERATURE	Adults (skin thickness of 2.5 mm)	Children (skin thickness of .54 mm)
	Time required for a third-degree burn to occur	
155°F 68°C	1 second	0.5 second
148°F 64°C	2 seconds	1 second
140°F 60°C	5 seconds	1 second
133°F 56°C	15 seconds	4 second
127°F 52°C	1 minute	10 seconds
124°F 51°C	3 minutes	1.5 minute
120°F 48°C	5 minutes	2.5 minutes
100°F 37°C	Safe temperature for bathing	Safe temperature for bathing

For SI: °C = [(°F) - 32]/1.8 or $\left(\frac{°F - 40}{18}\right) - 40 = °C$

Figure P2708.3
TEMPERATURE BURN CHART

Water Heater - Hot water supplied by building:
The hot water was provided by a centrally supplied water heater system that was maintained by the building. The hot water heater was not included in this inspection. It is pointed out that the plumbing system was operationally checked for the duration of the inspection and an adequate supply of hot water was obtained.

☒ ☐ ☒ ☐ **D. Hydro-Massage Therapy Equipment**

Comments:

Hydro-Therapy Equipment Not present:
Hydro-therapy equipment was not present at the time of the inspection.

☒ ☐ ☒ ☐ **E. Gas Distribution Systems and Gas Appliances**

Gas System - Gas System Not present:

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

Comments:
Type of gas distribution piping material: N/A

Gas service was not provided to the property and gas service piping is not installed.

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

V. APPLIANCES

☒ ☐ ☐ ☒ **A. Dishwashers**

Comments:

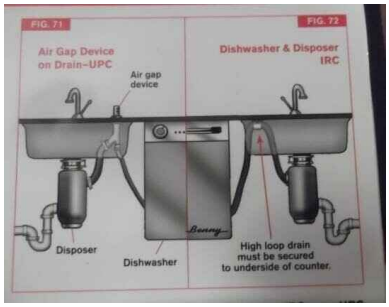
Functional:

The dishwasher was functioning and responded to the controls. The unit was run through a cycle at the time of the inspection and appeared to be operating properly.

1: No Anti-Siphon

The drain line under the sink was not equipped with an anti-siphon device, nor was it looped up so that the top of the loop is at least six inches above the entrance of the drain line into the disposal. It is recommended at least that the drain line be looped to prevent the water from the garbage disposal from siphoning back into the dishwasher, or an anti-siphon device installed.

Obtain Cost Estimate



2: Leaking Water

Kitchen

Water was observed to be leaking from around the door during the running cycle. It is pointed out that water damage was observed on the floor in front of the dishwasher due to this condition. Have a service company find the source of the problem, and make any necessary repairs

Obtain Cost Estimate

☒ ☐ ☐ ☒ **B. Food Waste Disposers**

Comments:

1: Motor Frozen - Replace

The motor was non-functional at the time of the inspection, and it is recommended that the disposal be replaced.

Obtain Cost Estimate

☒ ☐ ☐ ☐ **C. Range Hood and Exhaust Systems**

Comments:

Range Vent - Functional:

No items requiring repair were visible at the time of the inspection to the operation of the range vent. The vent fan was observed to be venting properly at the time of the inspection.

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D


☒ ☐ ☐ ☒ **D. Ranges, Cooktops, and Ovens**

Comments:

Electric Cooktop - Functional:
The electric cooktop was functional at the time of the inspection and responded to the controls. All of the elements and controls were operational at the time of the inspection.

Electric Oven - Functional:
The electric oven was observed to be functioning and no items requiring repair were visible at the time of the inspection.

Limited life:
Due to the age and/or condition of the equipment, it is the our opinion that the equipment has only a limited amount of life remaining.

Oven - Calibrated properly:
No repair was needed to the calibration of the oven thermostat. The thermostat was set at 350 degrees, and the oven heated to within the allowable ±25 degrees. The oven was checked with an oven thermometer and found to heat to 335 degrees.

1: Range - No anti-tip

The range was not equipped with an anti-tip device.

Obtain Cost Estimate

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

2: Door - front missing

The oven door cover was missing and needs to be replaced.

Obtain Cost Estimate

☒ ☐ ☒ ☐ **E. Microwave Ovens**

Comments:

Not Present:

A built-in microwave was not present at the time of the inspection.

☒ ☐ ☐ ☐ **F. Mechanical Exhaust Vents and Bathroom Heaters**

Comments:

Mechanical Vents - Functional:

The mechanical vent fans were functional at the time of the inspection. The bath vent fans responded to the switches and were functional at all the bathrooms.

☒ ☐ ☒ ☐ **G. Garage Door Operators**

Comments:

Not Present:

A garage door opener was not present at the time of the inspection.

☒ ☐ ☒ ☐ **H. Dryer Exhaust Systems**

Comments:

Dryer Vent - Not present :

A dryer vent was not present in the condo.

☒ ☐ ☐ ☐ **I. Other**

Comments:

Non Built-in Equipment - Not inspected:

It is pointed out that non built-in refrigerators, wine coolers, small refrigerators, clothes washers, and clothes dryers are not included in the scope of this inspection and were not checked. If further investigation is desired, it is recommended that a service company be contacted.

Further investigation is recommended

I=Inspected **NI=Not Inspected** **NP=Not Present** **D=Deficient**

I	NI	NP	D

INFORMATION FROM HEDDERMAN ENGINEERING INC.

Closing Comments :
Opinions and comments stated in this report are based on the apparent performance of the items included within the scope of the inspection, at the time of the inspection. Performance standards are based on the knowledge gained through the experience and professional studies of the inspector. There is no warranty or guarantee, either expressed or implied, regarding the habitability, future performance, life, merchantability, and/or need for repair of any item inspected. It is recommended that a Home Warranty Policy be provided to protect the appliances and mechanical equipment against unforeseen breakdowns during the first year. Check with your agent for details.

Items identified in the report as Deficient and our Recommendations are provided in the above report. Many, but not all, recommendations are highlighted in bold red text. It is our intention, and your responsibility, that you follow up on these deficiencies and recommendations as part of your due diligence by contacting the appropriate service contractor(s) for Further Investigation, Obtain cost estimate, and/or Contact the builder. It is pointed out that other related and/or underlying conditions may be present, and which may not be apparent in our limited, visual inspection without further investigation by qualified service companies. It is emphasized how important it is for you if you intend to rely on our report(s), to continue to gather the in-depth information that will be obtained by further investigation with appropriate service technicians who will use their specialized knowledge of the component(s) and the related building codes along with their specialized diagnostic equipment to give you the TOTAL PICTURE of the condition of the property. Failure on your part to do your due diligence will constitute negligence on your part and will result in an incomplete body of knowledge upon which you base your decisions regarding this property. We recommend that your further investigations be done before the expiration of your option period and before closing on the property.

As an additional service, we recommend using a new tool we have on our website that can quickly turn your inspection report into an easy-to-read estimate of repairs for a nominal fee. These pricing reports from a third party company called Repair Pricer not only make the inspection report easy to understand in terms of dollars and cents, but they are also useful negotiation tools. Just visit the page below on our website and upload your report into Repair Pricer. If you have any questions when you receive your report, you can contact them at info@repairpricer.com
http://www.heddermanengineering.com/repair-cost-estimates