

HEATING & COOLING SYSTEMS AND VENTILATION

FURNACE AND ITS COMPONENTS

- Type: A 1997 conventional furnace
- Fuel: Natural gas
- Conditions:
 - 1- Filter was 14*25*1 inch with one spare. It was almost impossible to change the filter without bending it.
 - 2- Combustion air's channel does not discharge air in the proper level.
 - 3- The size of the combustion air channel was inadequate (at least 5 inches, which present one was 4 inches).
 - 4- The channel providing combustion air was blocked in the north deck by a built in closet.
- *Recommendation:*
 - 1- Extend the combustion air's channel to the maximum of 450 mm from floor level.
 - 2- change the size and omit the intake blockage.



VENTILATION

- *Recommendations:*
 - 1- Change the rectangular cross section of the dryer vent with a plastic a circular solid metal vent.

FLUES AND CHIMNEYS

- Condition:
 - 1- Furnace exhaust was done by C vent in conjunction with gas hot water heater.
 - 2- The C vent was connected to a B bent from the ground floor ceiling which the penetrated over the roof.
 - 3- The clearance of the C vent was very much less than the supplier's recommendation.
 - 4-The C vent section over the furnace sloped downward.



5- The exhaust channels above the gas water heater up to the ceiling were rusted, and rests were concealed.



6- Asbestos sheets were used for clearance to wood members.

- *Recommendations:*
 - 1- Replace the rusted portions of the channel.
 - 2- Correct the slope of the exhaust channel.
 - 3- Provide the required clearances for fire hazard issues.
 - 4- Satisfy yourself about the condition of the concealed channels.
 - 5- Presence of the asbestos is a health hazard, and their disposal must be done by hazmat specialist personnel.

THERMOSTATS AND OTHER OPERATING CONTROLS

- Condition: Thermostat operated properly.

HEATING AND COOLING DISTRIBUTION SYSTEM

- Type: Concealed

SUPPLIED HEAT IN EACH HABITABLE ROOM

- Condition: There was not any permanent supply heating for the ground floor room.
- *Recommendations:* Provide a permanent heating supply for the mentioned room.