Indoor Air Quality and Insulation Report

Homeowner: Dana **Parcel:** 100000
Address: Some Avenue, Midwest
Project Status: Acoustic work complete
IAQ Technician: Joe Blow **Test Date**: 1, 1, 2000

General Information

House Type: 1 ½ story **Siding**: Stone **Roofing**: asphalt
Floor Area: Total – **1,640** sf (interior adjusted: 1,394)
Basement – 720 First floor – 720 Second floor 200

House Tightness and Ventilation

Air Leakage: 2,790 cfm50 with 2nd floor door shut, includes 1,423 cfm50 through open framing
Exhaust Fans: Total exhaust – 210cfm
Bathroom: ceiling exhaust, 60cfm (measured) main bath
Bathroom: 2nd floor 25 cfm (estimated), no effect on mechanical room pressure
Kitchen: none
Dryer: vented outside, 125cfm (estimated)
Continuous ventilation: none

Combustion Equipment

Oven: electric
Water Heater:
Fuel: natural gas Venting: natural draft Input rate: 40,000Btu/h (rated)
40,910Btu/h (measured)
Heating System: Furnace
Fuel: natural gas Venting: induced draft Input rate: 80,000Btu/h (rated)
81,820Btu/h (measured)
Space Heater: none

Combustion Air: none

Carbon Monoxide Test Results

Oven: electric
Water Heater: Pass
Steady-state: 0ppm Down-draft: 5ppm
Furnace: Pass
Steady-state: 5ppm Down-draft: not applicable

Combustion Spillage Test Results

Water Heater: Pass

Spillage – Pass worst case	Pass natural conditions
Draft – Pass worst case	Pass natural conditions

Furnace: Pass

Spillage – Pass worst case	Pass natural conditions
Draft – Pass worst case	Pass natural conditions

Combustion Vent System Configuration

Chimney Type: both vented into 12"cinder block with clay tile liner

	Current	Code Recommended
Water Heater connector	3"	4"
Heating System connector	5"	5"
Chimney liner	tile	5"

(collapsed 18 mo later)

Mechanical Area Depressurization

Air Handler Operation: negligible Worst Case: -0.7Pa

Combustion Equipment Recommended Limit: -5 Pa

Moisture and Other IAQ Concerns

- Main floor bath fan has no visible exhaust, possible exhausting into the unfinished attic. Homeowner should vent this fan to the exterior. Additional ventilation may be required if passive moisture controls are not adequate for basement mold smells.

- Basement has a strong mold odor. There is a pump in the existing sump with water present and open concrete block cores that provide a good connection with interior air. Some flooding occurs during heavy rains. Possibly improving the grading further and directing the sump outlet away from the foundation will reduce this problem.

No additional work recommended

Future remodeling is the homeowner's responsibility.

No thermal or pressure boundary exists between the vented attic and conditioned space. There are two conditioned rooms in the 2nd floor that are only accessible through the unfinished attic. Significant acoustic and other benefits can be realized when the remodeling of the second floor is completed.