Energy Assessment for the Woodstock Library Located At

5 Library Lane
Woodstock, NY 12498

AUDIT PERFORMED BY:

Flatley Read, Inc.
PO Box 104
Schuylerville, NY 12871
518-577-5681

Property Information

Property	Woodstock Library
Address	5 Library Lane, Woodstock NY

Building Information

Building Component	Description / Material / Locations	Condition G/F/P or N/A
Frame	Wood / Masonry	Fair
Siding	Vinyl / Aluminum / Concrete	Fair
Roof	Rubber	Fair
Interior Walls	Plaster / Wallboard / Sheetrock	Fair
Smoke / CO	Yes – meets building code	Good

Room	Access	Insulated Y / N	Vented Y / N	Condition G / F / P	Description
Attic	Limited	Yes	No	Poor	Sporadic insulation
Basement	Interior	No	No	Poor	Full + crawl space

The structure is a library normally open to the public throughout the year.

The furnace is of unknown age and presumed to be inefficient despite periodic upgrades. Library staff indicate the furnace is inspected annually. An infrared camera indicates the attic and exterior wall insulation does not create a continuous insulation and air barrier. Insulation should be upgraded to achieve an intact building envelope.

The last page of this report is a list of energy efficiency improvement recommendations, listed in order of savings to investment ratio (SIR). In general, higher SIR items will provide better energy efficiency return on investment. However, there may be reasons other than energy efficiency, such as health and safety or code compliance, to be considered when ranking the importance of these recommendations.

Combustion Appliance Zone (CAZ) Safety Test

Base Pressure	Worst Case	Natural Conditions
-0.3	-0.1	

Appliance	Fuel	Condition G/F/P	Age	Spillage / Draft / CO Pass / Fail	Date of Most Recent Service
Furnace	Oil	Poor	>20	Pass	Annual
Hot Water Heater	Electric	Good	<10	N/A	Unknown

Windows

Type (double hung, casement, fixed, custom)	Size	Glass (single, double)	Material (vinyl, wood, aluminum)	Storm Y/N	Used Y/N	#	Condition G / F / P
Double hung	36x56	Single	Wood	Yes	Yes	4	Fair
Double Hung	28x56	Single	Wood	Yes	Yes	6	Fair
Fixed	36x32	Single	Wood	Yes	No	4	Poor
Fixed	24x32	Single	Wood	Yes	No	4	Poor
Double Hung	27x54	Single	Wood	Yes	No	2	Poor
Double Hung	36x57	Single	Wood	Yes	Yes	7	Fair
Double Hung	27x57	Single	Wood	Yes	Yes	2	Fair
Double Hung	24x41	Single	Wood	Yes	No	6	Fair

Doors

Location	Size	Glass Y/N	Material (vinyl, wood, aluminum)	Storm Y/N	Used Y/N	#	Condition G / F / P
Egress Doors	Mixed	No	Aluminum / Wood	No	Yes	8	Poor

Air infiltration was observed in the following locations:

- Windows at frame / sash
- Windows at frame / wall
- Doors at jamb / door
- Doors at jamb / wall
- Attic insulation is not continuous
- Exterior wall insulation is continuous

Summary of Health and Safety Recommendations

Inspect Chimneys, Vents, and All Combustion Heating Appliances Annually
Completely inspect entire length of the currently used chimney and all vents connected to chimney to ensure proper ventilation of all combustion appliances. Inspect all combustion appliances to ensure proper draft and safe, hazard free operation.

Estimated Cost: **$500.00**
Estimated first Year Savings: N/A
Savings to Investment Ratio (SIR): N/A

Summary of Energy Management Recommendations

Seal All Areas of Significant Air Leakage
Blower door testing indicated potential sites for significant air leakage was observed in the areas described above. Note: It is recommended that a post blower door test be completed on the building to determine the post-renovation Building Airflow and potential need installation of mechanical ventilation.

Estimated Cost: **$2,400.00**
Estimated First Year Savings: **$150.00**
Savings to Investment Ratio (SIR): 1.25

Install Insulation
All un-insulated wall and ceiling (attic) cavities should be filled with cellulose insulation as per manufacturer's recommendations to achieve a total value of R-30 wherever feasible. Insulate roof and knee wall crawl spaces to R-38.

Estimated Cost: **$4,000.00**
Estimated First Year Savings: **$200.00**
Savings to Investment Ratio (SIR): 1.0

Replace Heating System
Replace current heating system with an Energy Star rated high efficiency unit.

Estimated Cost: **$8,500.00**
Estimated First Year Savings: **$275.00**
Savings to Investment Ratio (SIR): 0.65

Replacement Windows
Replace single pane wood frame windows.

Estimated Cost: **$8,000.00**
Estimated First Year Savings: **$85.00**
Savings to Investment Ratio (SIR): 0.38