



Gunn Memorial Library

Washington, CT

Thermographic Inspection Images

This report contains selected infra-red images taken during a thermographic inspection and blower door test conducted at the Gunn Memorial Library on May 4, 2011.

Testing was conducted from 9.00am to 12.00 noon. The heating system had been left on overnight but was turned off before testing. Interior temperatures were 72-73°F and exterior temperatures were 55-58 °F during the test.

Many of the images combine the infra-red and a visual light image to assist the viewer in identifying the location. The hottest areas in an infra-red image are white and the coolest are blue.

Images up to #118 were taken before the blower door test was run. This set of images is useful for identifying missing insulation. Higher numbered images were taken with the blower door running and thermal imaging enables us to see areas where cooler outside air is being sucked into the building through cracks and other defects.

2nd floor, by main entrance

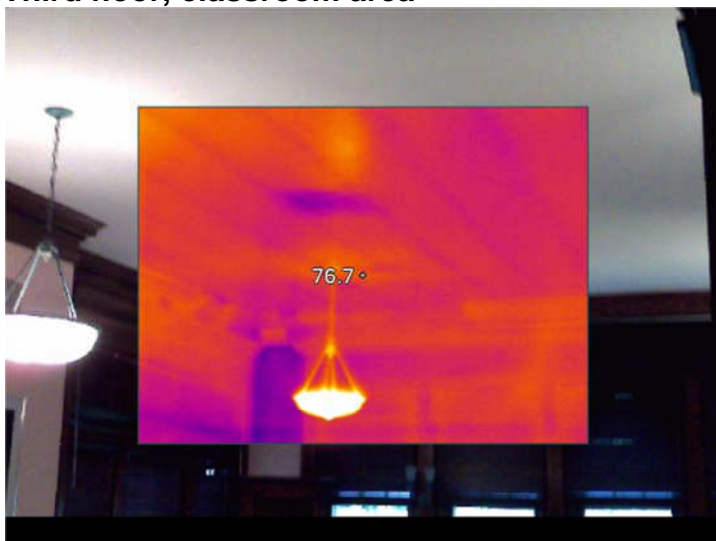


IR000103.IS2

5/4/2011 9:25:56 AM

Missing or settled insulation at the top of wall cavities

Third floor, classroom area

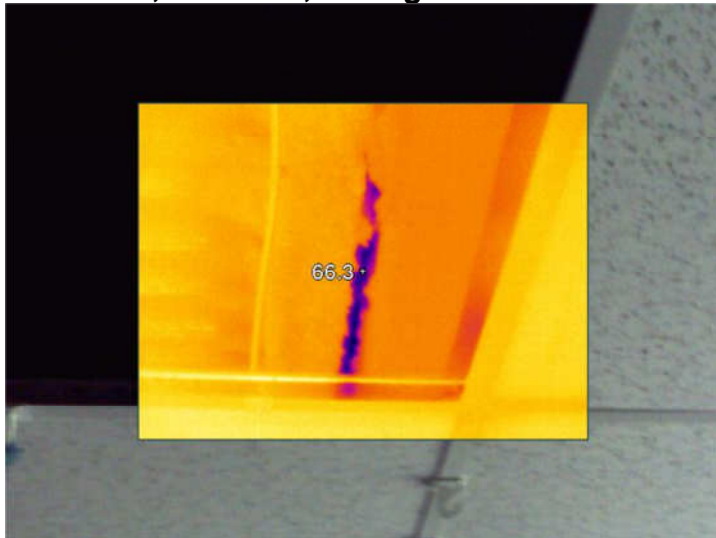


IR000114.IS2

5/4/2011 9:49:37 AM

Section of missing insulation in ceiling. A similar area was also seen on the other side of the room

First floor, NE room, ceiling area



IR000118.IS2

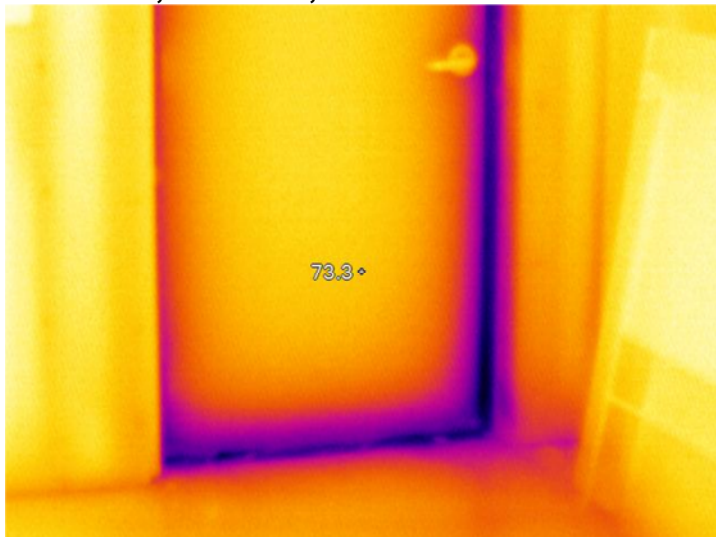
5/4/2011 10:03:41 AM

Ceiling tiles had been removed, probably to find source of water stains on ceiling tile. A section is apparent where you can see up to the underside of the small roof area above with no insulation.

Filling gap with spray foam should reduce cold air from roof cavity chilling the ceiling.

The same defect is probably found under the small roof section in the SE of the 1st floor

Basement, exit door, S side



IR000123.IS2

5/4/2011 10:17:05 AM

Infiltration around doors. Weather-stripping should be checked and adjusted or replaced

3rd Floor classroom area ceiling



IR000124.IS2

5/4/2011 10:34:56 AM

Air infiltration can be seen most noticeably along the top edge of the crown molding and also at other joints.

3rd floor classroom area, N wall



IR000125.IS2

5/4/2011 10:36:17 AM

Air infiltration around the tops of the windows.
New storm windows are being installed and will reduce infiltration around windows

3rd floor exterior door



IR000126.IS2

5/4/2011 10:37:20 AM

Air infiltration around edge of door. Daylight can be seen through gaps at several places.

3rd floor reading room



IR000128.IS2

5/4/2011 10:42:21 AM

Air infiltration around coffering on ceiling

Main library atrium

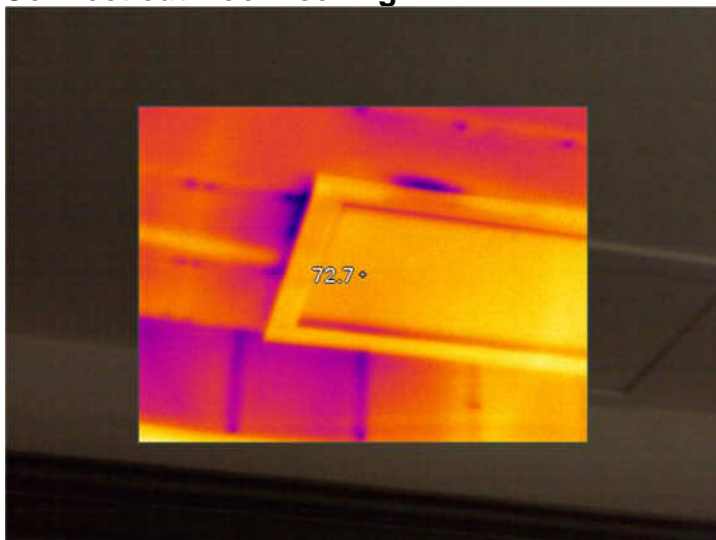


IR000129.IS2

5/4/2011 10:46:30 AM

Major air infiltration through return side of HVAC system. This could be due to leaky ductwork but is more likely due to fresh air inlet dampers either being open or being very leaky. Replacement with mechanically controlled dampers would then reduce this problem.

Connecticut Room ceiling



IR000131.IS2

5/4/2011 10:48:17 AM

Air leakage through gap between ceiling and hatch trim

Main stairwell, 3rd floor

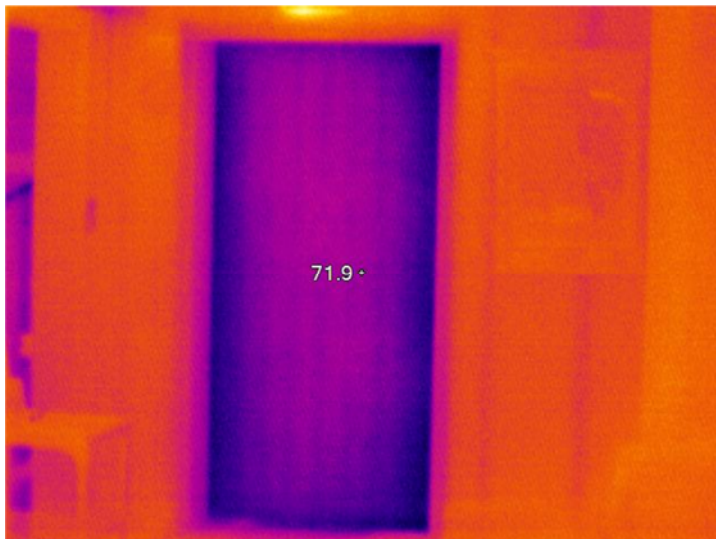


IR000134.IS2

5/4/2011 10:52:00 AM

Poorly installed insulation allows air movement inside walls

2nd floor elevator door

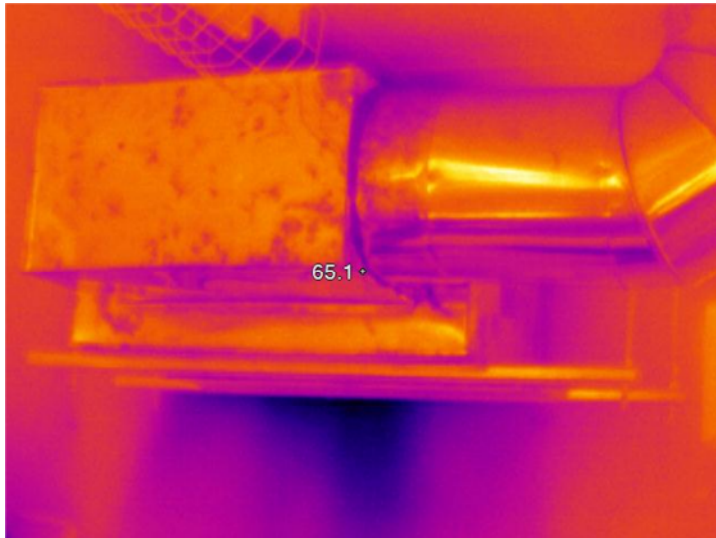


IR000135.IS2

5/4/2011 10:52:45 AM

Significant air leakage is coming from elevator shaft

Second floor electrical room

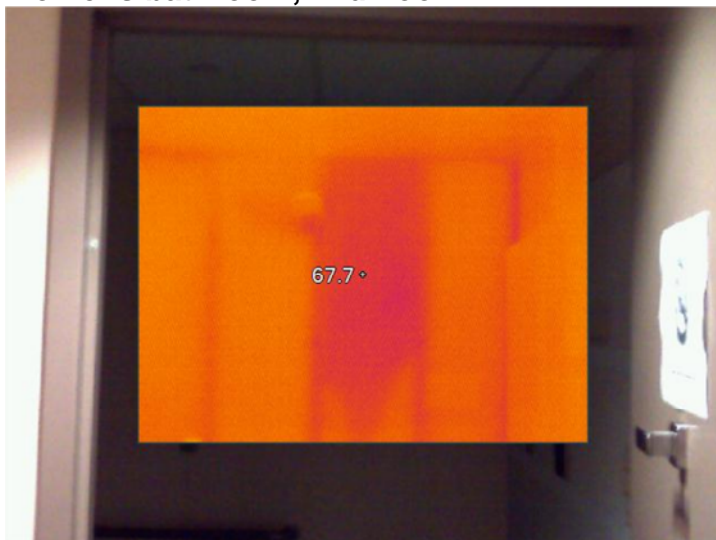


IR000137.IS2

5/4/2011 10:56:30 AM

Air leakage around fresh air inlet for HVAC system

Womens bathroom, 2nd floor

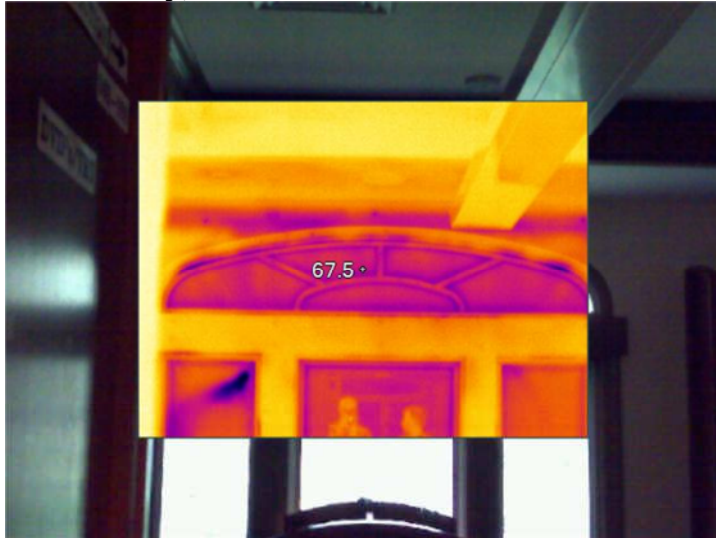


IR000138.IS2

5/4/2011 10:57:45 AM

Poorly installed insulation in one wall cavity

Main library, N wall

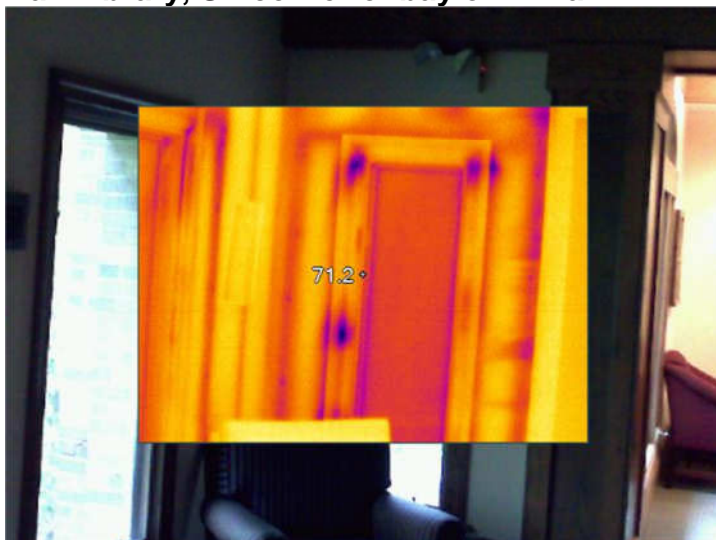


IR000139.IS2

5/4/2011 10:59:47 AM

Missing insulation in cavities above windows

Main library, SE corner of bay on E wall

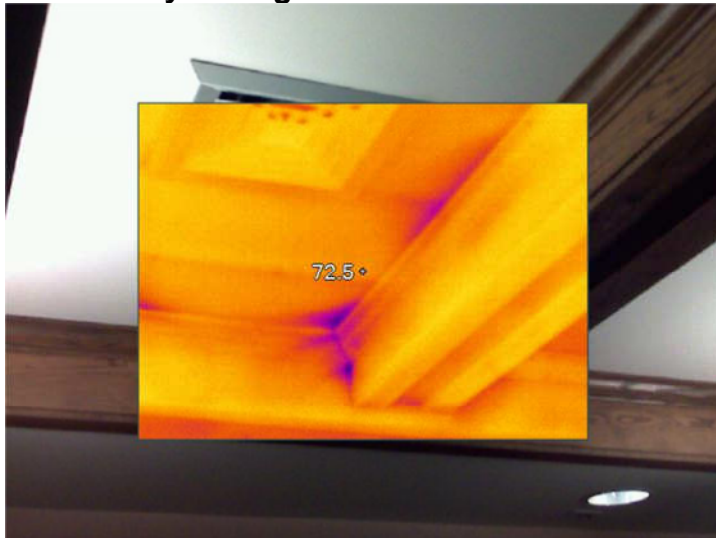


IR000142.IS2

5/4/2011 11:06:44 AM

Shows typical air infiltration around window trim

Main library ceiling near main entrance



IR000144.IS2

5/4/2011 11:11:33 AM

Air leakage around coffered ceiling trim

Childrens library, east wall



IR000145.IS2

5/4/2011 11:16:36 AM

Poorly installed insulation allowing air circulation inside wall cavities
