Infrared Thermography in the Dumont Residence March 2006

# Fanlight over Front Door



### Front Door Locks



### **Bottom of Front Door**



#### Drywall Screws in the North Wall



# **People doing Dishes**



# Built up beam supporting main floor joists



# Air leakage through spaces between built up 2 x 10 beam



#### Surface Temperature Measurement on beam



# Leaky Casement Window on Right (caused by poor closure of window)



# Note cold temperature at base of window



# Poorly closed window



Note window temperature.

# Windows are triple glazed, low e argon filled units with non-metallic spacers



Note on the left window that the frame is cooler than the window glass. The frame has a poorer R value than the glass



# More door problems with air leakage



#### Temperature at bottom of the door



Floor imprints from moccasins (Skin Temperature is about 30 C) (But I don't have flat feet!)



### Basement floor drain (unheated crawl space underneath)



# Close-up of floor drain



#### Chest Freezer in Operation (condenser buried in the metal skin causes the hot lines)



#### Another view of the freezer



### Thermogram of the Main Electrical Panel for the house



### Top of solar hot water storage tank (water in tank at 45 C)



### View of Insulated Pipe exiting top of solar hot water storage tank



# Hot Water Flowing Through ABS Drain Pipe



### GFX Waste Water Heat Recovery Unit



# ABS Pipe & GFX Top



#### Top Half of GFX Unit

Hot Drain Water = 45 CCold Water In = 6 CCold Water Out = 25C



#### Upper Part of GFX Waste Water Heat Recovery Unit



# **GFX** Midpoint



# Thermogram taken of a large mirror.

