

# THERMAL IMAGING REPORT 15-11-2024





March 18, 2024

Dear John Smith,

RE: Report No. 182024, v.0 38 Greenwich S St, London, SE10 0UD

Thank you for choosing us to perform your home inspection. We hope the experience met your expectations.

There are a series of colored tabs at the top of each page of the attached report that you can click for easy navigation. The report begins with an Overview and then has one section for every major home system (Roofing, Exterior, Structure, etc.). Blue, underlined text indicates a hyperlink. Click on the hyperlink for more information on that subject or condition. There is further reference material at the end.

Please feel free to contact us with questions about the report or the home itself anytime, for as long as you own your home. Our telephone and e-mail consulting services are available at no cost to you. Please watch for your follow-up e-mail. We hope you will fill out and return our client questionnaire.

Thanks again for choosing Thermo-Scan.

Sincerely,

Alex Prevost, B. Eng,

Home Inspection on behalf of Thermo-Scan.



OVERVIEW THERMAL IM APPENDIX REFERENCE

#### INTRODUCTION

This Overview lists some of the significant report items that may need attention in the short term. This must not be considered as the complete report. Please read the entire report and the appropriate text included in the hyperlinks.

The goal of a home inspection is to identify significant issues that would affect the average person's decision to buy a home. While looking for big issues we typically identify some minor defects along the way. We include these in the report as a courtesy, but please understand a home inspection is not a Technical Audit and does not include a comprehensive list of minor issues. (That service is available at additional cost.)

When you move into the home you may find some issues not identified in the report. That is to be expected, and we suggest you allow roughly 1% of the value of the home annually for this type of maintenance and repair.

# Thermal Imaging

## **FOUNDATION WALLS \ Anomaly noted**

**Condition:** • Moisture detected with moisture meter

Located near the downspout.

Manage the water from the exterior

Location: Southeast Basement

**Condition:** • Moisture detected with moisture meter

Located near the downspout.

Manage the water from the exterior

Location: Southeast Basement

#### CONCLUSION

Most houses are designed to last a very long time, but many of the components are consumable. Roofs, heating systems, air conditioning systems and water heaters, for example, wear out and are replaced from time to time. A home with older systems does not mean a poor-quality house.

Many elements like kitchens, bathrooms, flooring, siding, and windows are most often changed for lifestyle and decorating reasons. These discretionary home improvements are typically planned projects.

Unplanned repairs or replacements are never welcome but are part of the 'joy of home ownership'. We encourage you to set up maintenance programs to protect your investment, reduce costs, improve comfort and efficiency, and extend life expectancy.

## A Word About Water

Uncontrolled water is the enemy of homes. It not only damages the replaceable components, it also attacks the permanent elements of a home including wood and steel structural members, siding, trim, windows, doors, walls, floors, and ceilings. Water also promotes mould growth.



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Water sources include rain, snow, surface water, ground water, leaks from plumbing and heating systems and condensation. Again, preventative maintenance is the key to protecting your investment and avoiding water damage. This includes keeping gutters and downspouts clear and leak free and discharging water well away from the building. Lot grading should slope slightly down away from the home to direct surface water away from the home.

Annual maintenance programs on roofs, gutters, heating and cooling systems help minimize water damage.

## ASBESTOS, MOULD AND OTHER ENVIRONMENTAL ISSUES

Environmental issues are outside the scope of a home inspection. Inspectors do not identify or evaluate issues such as asbestos, mould and indoor air quality. Many building materials contain asbestos, and moisture problems may result in visible or concealed mould. An Environmental Consultant can assist with these types of issues.

#### **END OF OVERVIEW**

#### NOTE: BALLPARK COSTS AND TIME FRAMES

Any ballpark costs and time estimates provided are a courtesy and should not be relied on for budgeting or decision-making. Quotes from specialists should be obtained. The word 'Minor' describes any cost up to roughly \$500.



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# Description

General: • Our approach to thermography/thermal imaging: Thermo-Scan constantly try to use equipment that incorporate the latest in thermal imaging for home inspections and use specific protocols focused on identifying water issues, air gaps and insulation inefficiencies.

# Observations and Recommendations

# **FOUNDATION WALLS \ Anomaly noted**

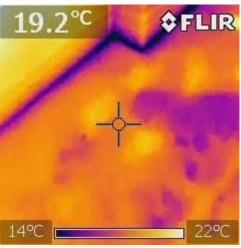
Condition: • Moisture detected Located near the

downspout.

Manage the water from the exterior Location: Southeast Basement



Moisture detected with moisture meter



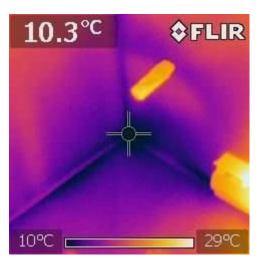
Moisture detected with moisture meter

**Condition:** Moisture detected with moisture meter

Located near the downspout. Manage the water from the exterior Location: Southeast Basement



Moisture detected with moisture meter



Moisture detected with moisture meter



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# FOUNDATION WALLS \ No anomalies noted

**Condition:** • Typical image **Location**: Northeast Basement



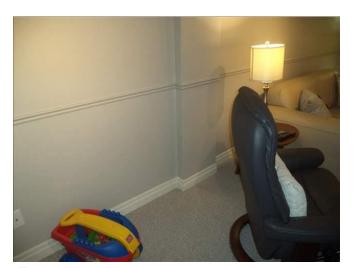
Typical image

Air Register FLIR

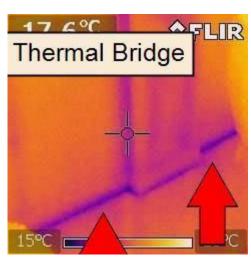
THERMO-SCAN.CO.UK INSPECTION SERVICES

Typical image

**Condition:** Typical image Typical thermal bridge (arrow) **Location:** West Basement



Typical image



Typical image



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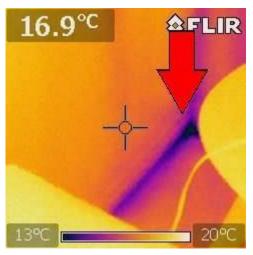
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**Condition:** Typical image Typical thermal bridge (arrow) **Location:** West Basement

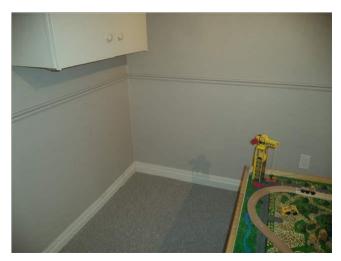


Typical image

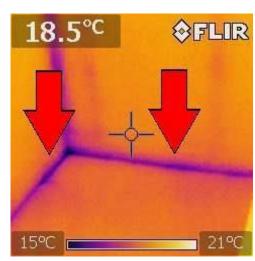


Typical image

**Condition:** Typical image Typical thermal bridge (arrow). **Location:** Southwest Basement



Typical image



Typical image

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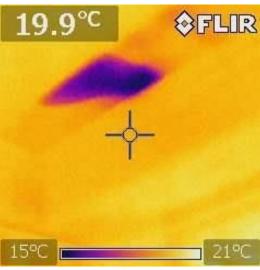
# **CEILINGS BELOW PLUMBING FIXTURES \ Anomaly noted**

**Condition:** Moisture detected with moisture meter **Location**:

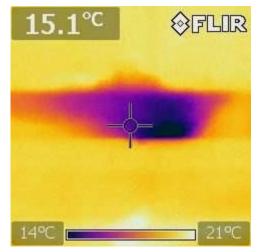
Under Second Floor Master Bathroom



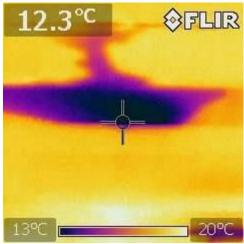
Moisture detected with moisture meter



5 minutes of running water.



10 minutes of running water.



15 minutes of running water.



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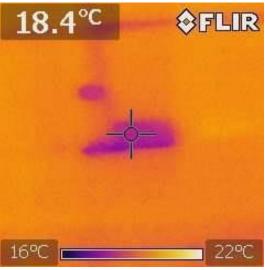
REFERENCE

Condition: • Moisture detected with moisture meter

Location: Under Second Floor Bathroom



Moisture detected with moisture meter



Moisture detected with moisture meter

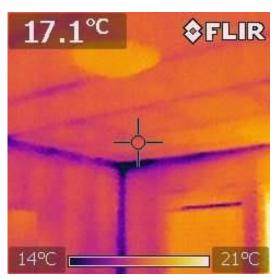
# CEILINGS BELOW PLUMBING FIXTURES \ No anomalies noted

Condition: • Typical image

Location: Under First Floor Kitchen



Typical image



Typical image

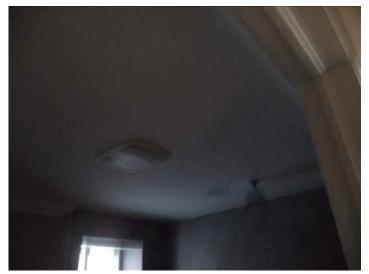
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Condition: • Typical image

Location: Under Second Floor Front Bathroom

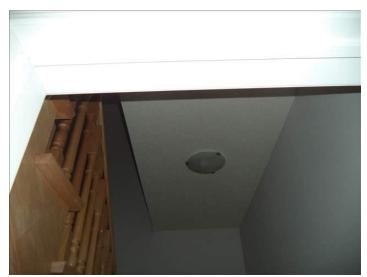


Typical image

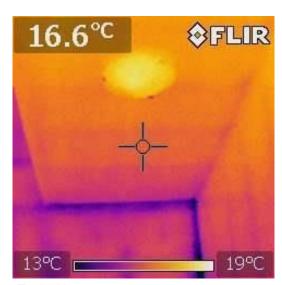
Typical image

Condition: • Typical image

Location: Under First Floor Powder Room



Typical image



Typical image





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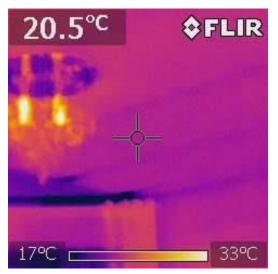
REFERENCE

Condition: • Typical image

Location: Under Second Floor Laundry Area



Typical image



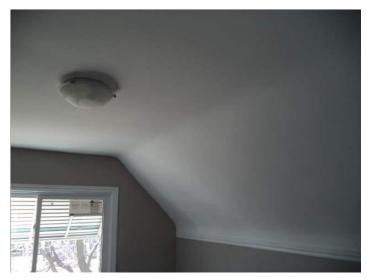
Typical image

# **CEILINGS BELOW ROOFING \ No anomalies noted**

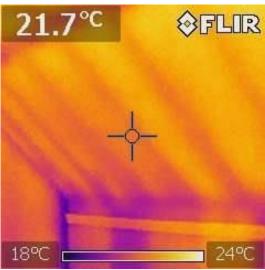
Condition: Typical image

Typical image throughout (sample second floor)

Location: Throughout



Typical image - above rear bedroom



Typical image - above rear bedroom



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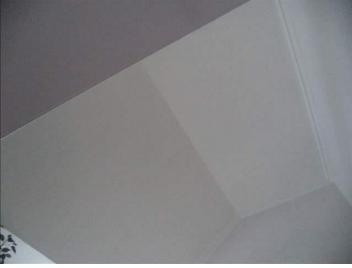
REFERENCE

# **CEILINGS BELOW ROOFING \ No anomalies noted**

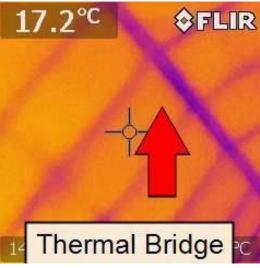
Condition: Typical image

Typical image throughout (sample second floor)

Location: Throughout



Typical image - above master bedroom



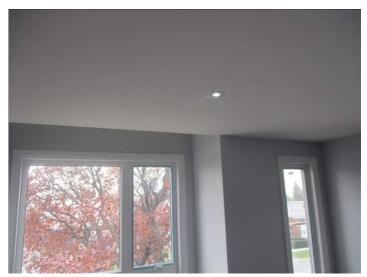
HERMO-SCAN.CO.UK

Typical image - above master bedroom

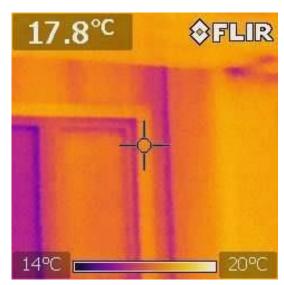
# WINDOWS \ No anomalies noted

**Condition:** Typical image **Location**:

Throughout



Typical image - master bedroom



Typical image - master bedroom



**OFLIR** 

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#### WINDOWS \ No anomalies noted **Condition:** Typical image **Location**:

Throughout



Typical image - rear bedroom

Condition: Typical image

Location: Second Floor Skylight Well



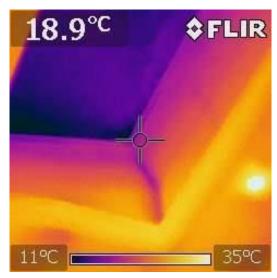
Typical image - rear bedroom

14°C

18.2°C



Typical image



Typical image

# Inspection Methods and Limitations

**Scope:** • Thermal imaging is used as a screening tool to identify potential areas of moisture.

Limitations: • Storage and/or furnishings limited inspection

#### **END OF REPORT**

#### IMPORTANT ADVICE FOR LOOKING AFTER YOUR HOME

Home maintenance is an important responsibility. It protects your investment, extends life expectancy and helps avoid significant expenses. This document is an integral part of the report and will help you avoid many common problems and reduce costs.

# Priority Maintenance and Home Set-Up

The Home Set-Up and Maintenance chapter in the Home Reference Book provides important information regarding things that are done once when moving in, as well as regular maintenance activities. Please be sure to follow these maintenance guidelines. The Home Reference Book is included under the REFERENCE tab in this report.

## Basement/Crawlspace Leakage

Basement water leakage is the most common problem with homes. Almost every basement and crawlspace leaks under the right conditions. Good maintenance of exterior grading, gutters and downspouts is critically important. For more details, please refer to Section 10 of the **Interior** chapter of the Home Reference Book, which is in the **REFERENCE** tab in this report.

#### Roof - Annual Maintenance

It is important to set up an annual inspection and tune-up program to minimize the risk of leakage and maximize the life of the roof. Roof leaks may occur at any time and are most often at penetrations or changes in material. A leak does not necessarily mean the roof needs to be replaced.

Roof coverings are disposable and must be replaced from time to time. Asphalt shingles, for example, last roughly 15 years.

## Exterior - Annual Maintenance

Annual inspection of the exterior is important to ensure weather-tightness and durability of exterior components. Grading around the home should slope to drain water away from the foundation to help keep the basement dry. Painting and caulking should be well maintained. Particular attention should be paid to horizontal surfaces where water may collect. Joints, intersections, penetrations and other places where water may enter the building assembly should be checked and maintained regularly.

# **Garage Door Operators**

The auto reverse mechanism on your garage door opener should be tested monthly. The door should also reverse when it meets reasonable resistance, or if the 'photo eye' beam is broken.

# **Electrical System - Label the Panel**

Each circuit in the electrical panel should be labelled to indicate what it controls. This improves both safety and convenience. Where the panel is already labelled, the labelling should be verified as correct. Do not rely on existing labelling.

## Ground Fault Interrupters and Arc Fault Circuit Interrupters

These should be tested monthly using the test buttons on the receptacles or on the breakers in the electrical panel.

# Heating and Cooling System - Annual Maintenance

Set up an annual maintenance agreement that covers parts and labor for all heating and cooling equipment. This includes gas fireplaces and heaters, as well as furnaces, boilers and air conditioners. Include humidifiers and electronic air cleaners in the service agreement. Arrange the first visit as soon as possible after taking possession.

Check filters for furnaces and air conditioners monthly and change or clean as needed. Duct systems have to be balanced to maximize comfort and efficiency, and to minimize operating costs. Adjust the balancing for heating and cooling seasons, respectively.

For hot water systems, balancing should be done by a specialist to due to the risk of leakage at radiator valves. These valves are not operated during a home inspection.

#### **Bathtub and Shower Maintenance**

Caulking and grout in bathtubs and showers should be checked every 6 months and improved as necessary to prevent leakage and water damage behind walls and below floors.

#### **Water Heaters**

All water heaters should be flushed by a specialist every year to maximize performance and life expectancy. This is even more critical on tankless water heaters.

# Washing Machine Hoses

We suggest braided steel hoses rather than rubber hoses for connecting washing machines to supply piping in the home. A ruptured hose can result in serious water damage in a short time, especially if the laundry area is in or above a finished part of the home.

# **Clothes Dryer Vents**

We recommend that vents for clothes dryer's discharge outside the home. The vent material should be smooth walled (not corrugated) metal, and the run should be as short and straight as practical. This reduces energy consumption and cost, as well as drying time for clothes. It also minimizes the risk of a lint fire inside the vent.

Lint filters in the dryer should be cleaned every time the dryer is used. There is a secondary lint trap in many condominiums. These should be cleaned regularly. There may also a duct fan controlled by a wall switch. The fan should be ON whenever the dryer is used.

Dryer ducts should be inspected annually and cleaned as necessary to help reduce the risk of a fire, improve energy efficiency and reduce drying times.

# Fireplace and Wood Stove Maintenance

Wood burning appliances and chimneys should be inspected and cleaned before you use them, and annually thereafter. We recommend that specialists with a WETT (Wood Energy Technology Transfer, Inc.) designation perform this work. Many insurance companies require a WETT inspection for a property with a wood burning device.

## Smoke and Carbon Monoxide (CO) Detectors

Smoke detectors are required at every floor level of every home, including basements and crawlspaces. Even if these are present when you move into the home, we recommend replacing the detectors. Carbon monoxide detectors should be provided adjacent to all sleeping areas.

These devices are not tested during a home inspection. Detectors should be tested every 6 months and replaced every 10 years. Batteries for smoke and carbon monoxide detectors should be replaced annually. If unsure of the age of a smoke detector, it should be replaced.

This is a copy of our home inspection contract and outlines the terms, limitations and conditions

#### THIS CONTRACT LIMITS THE LIABILITY OF THE HOME INSPECTION

#### COMPANY. PLEASE READ CAREFULLY BEFORE SIGNING.

The term Home Inspector in this document means the Home Inspector and the Home Inspection Company.

The Home Inspector's report is an opinion of the present condition of the property, based on a visual examination of the readily accessible features of the building.

In addition to the limitations in the STANDARDS, the Inspection of this property is subject to Limitations and Conditions set out in this Agreement.

#### LIMITATIONS AND CONDITIONS OF THE HOME INSPECTION

The focus of the home inspection is on major issues that may affect a reasonable person's decision to buy a home.

A Home Inspector is a generalist, rather than a specialist. The home inspection is a non-invasive performance review, rather than a design review. Home Inspectors do not perform calculations to determine whether mechanical, electrical and structural systems for example, are properly sized.

#### 1) THE INSPECTION IS NOT TECHNICALLY EXHAUSTIVE.

The Inspection is a sampling exercise and is not technically exhaustive. The focus is on major issues, and while looking for major issues, we typically come across some smaller issues. These are included in the report as a courtesy, but not all issues will be identified.

Establishing the significance of an issue may be beyond the scope of the inspection. Further evaluation by a specialist may be required.

A Technical Audit is a more in-depth, technically exhaustive inspection of the home that provides more information than a Home Inspection. We have both services available. By accepting this agreement, you acknowledge that you have chosen a Home Inspection instead of a Technical Audit.

If you are concerned about any conditions noted in the Home Inspection Report, we strongly recommend that you consult a qualified specialist to provide a more detailed analysis.

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#### 2) THE INSPECTION IS AN OPINION OF THE PRESENT CONDITION OF THE VISIBLE COMPONENTS.

A Home Inspection does not include identifying defects that are hidden behind walls, floors or ceilings. This includes inaccessible elements such as wiring, heating, cooling, structure, plumbing and insulation.

Some intermittent problems may not be detectable at a Home Inspection because they only happen under certain circumstances. For example, your Home Inspector may not discover leaks that occur only during certain weather conditions or when a specific tap or appliance is being used in everyday life.

Home Inspectors will not find conditions that are concealed by finishes, storage or furnishings. Inspectors do not remove wall coverings (including wallpaper), lift flooring (including carpet) or move storage or furniture.

#### 3) THIS IS NOT A CODE-COMPLIANCE INSPECTION

Home Inspectors do NOT determine whether any aspect of the property complies with past or present codes (such as building codes, electrical codes, fuel codes, fire codes, etc.), regulations, laws, by-laws, ordinances or other regulatory requirements. Codes change regularly, and most homes will not comply with current codes.

#### 4) THE INSPECTION DOES NOT INCLUDE HAZARDOUS MATERIALS.

This includes building materials that are now suspected of posing a risk to health such as phenol-formaldehyde and urea- formaldehyde based insulation, fiberglass insulation and vermiculite insulation. Inspectors do NOT identify asbestos in roofing, siding, wall, ceiling or floor finishes, insulation or fireproofing. Inspectors do NOT look for lead or other toxic metals in such things as pipes, paint or window coverings. Health scientists can help in these areas.

The Inspection does not deal with environmental hazards such as the past use of insecticides, fungicides, herbicides or pesticides. Home Inspectors do NOT look for, or comment on, the past use of chemical termite treatments in or around the property.

#### 5)WE DO NOT COMMENT ON THE QUALITY OF AIR IN A BUILDING.

The Inspector does not determine if there are irritants, pollutants, contaminants, or toxic materials in or around the building.

The Inspection does not include spores, fungus, mould or mildew. You should note that whenever there is water damage noted in the report, there is a possibility that mould or mildew may be present, unseen behind a wall, floor or ceiling.

If anyone in your home suffers from allergies or heightened sensitivity to quality of air, we strongly recommend that you consult a qualified Environmental Consultant who can test for toxic materials, mould and allergens at additional cost.

#### 6) WE DON'T LOOK FOR BURIED TANKS.

Home Inspectors do not look for fuel oil, septic or gasoline tanks that may be buried on the property. If there is fuel oil or other storage tanks on the property, you may be responsible for their removal and the safe disposal of any contaminated soil. If you suspect there is a buried tank, we strongly recommend that you retain a qualified Environmental Consultant to investigate.

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#### 7) CANCELLATION FEE

If the inspection is cancelled within 24 hours of the appointment time, a cancellation fee of 50% of the fee will apply.

#### 8)THERMAL IMAGING

The use of a thermal imager by your home inspector is for the purpose of screening for water leakage issues. While the use of this equipment improves the odds of detecting a moisture issue, it is not a guarantee, as numerous environmental conditions can mask the thermal signature of moisture. Additionally, leakage is often intermittent and cannot be detected when not present.

#### 9) REPORT IS FOR OUR CLIENT ONLY.

The inspection report is for the exclusive use of the Client named herein and will not be released to others without the Client's consent. No use of the information by any other party is intended.

#### 10) NOT A GUARANTEE, WARRANTY OR INSURANCE POLICY.

The inspection and report are not a guarantee, warranty or an insurance policy about the fitness of the property. A home warranty is available.

#### 11) TIME TO INVESTIGATE

Home Inspectors will have no liability for any claim or complaint if conditions have been disturbed, altered, repaired, replaced or otherwise changed before they have had a reasonable period to investigate.

#### 12) LIMIT OF LIABILITY

THE LIABILITY OF THE HOME INSPECTOR AND THE HOME INSPECTION COMPANY ARISING OUT OF THIS INSPECTION AND REPORT, FOR ANY CAUSE OF ACTION WHATSOEVER, WHETHER IN CONTRACT OR IN NEGLIGENCE, IS LIMITED TO A REFUND OF THE FEES THAT YOU HAVE BEEN CHARGED FOR THIS INSPECTION OR \$1,000, WHICHEVER IS GREATER.

#### 13) TIME PERIOD

The Client acknowledges and agrees that the timeframe for commencement of legal proceedings by the Client against the Inspector for damages suffered by the Client because of alleged errors, omissions, breaches of contract and/or negligence by the Inspector shall not be later than two (2) years from the date of the inspection.

## 14) LEGAL ADVICE

The Client has had such legal advice as the Client desires in relation to the effect of this Contract on the Client's legal rights.

#### 15) CLIENT'S AGREEMENT

The Client understands and agrees to be bound by each provision of this contract. The Client has the authority to bind any other family members or other interested parties to this Contract.