



HPO Update

Commitment to Maintenance

BCBEC Vancouver Island Luncheon
Thursday, September 28, 2006

**John Bell, M.E.S., Manager Research and
Education**

Today...

- HPO programs & stats
- Financial Assistance Program
- Research & Education initiatives
 - Consumer/industry projects
 - **Building Envelope Maintenance Matters**
bulletins

HPO Mandate:

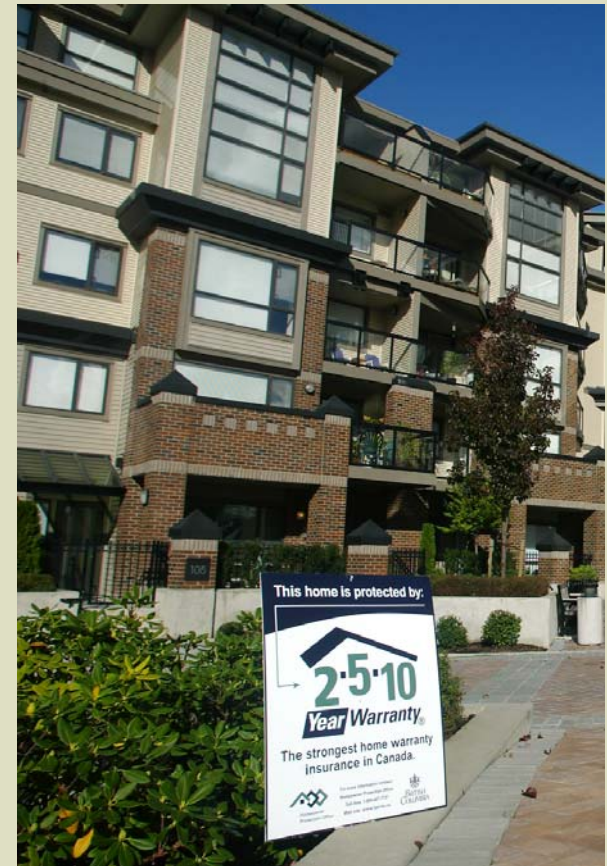
Homeowner Protection Act 1998

- HPO – a provincial Crown corporation
- Help bring about improvements in the quality of residential construction in BC
- Increase consumer protection for new homebuyers



HPO's Responsibilities

- License residential builders and building envelope renovators
- Monitor the performance of home warranty insurance system
- Research and education – building science, best practices and consumer information
- Financial assistance to owners of leaky homes



HPO Board of Directors

Representation:

- Homebuilders
- Developers
- Consumers
- Public Interest



Residential Builder Licensing

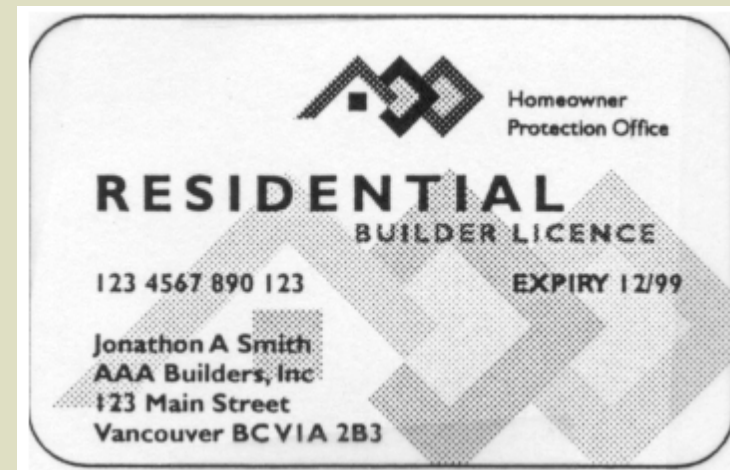
Residential builders of new homes must be licensed by the HPO in order to:

- Get a building permit
- Commence construction

Licenses as of Sept 06:

- Residential Builders: 4,625
- Building Envelope Renovators: 66

“Raising the Bar” collaborative initiative is currently underway



Home Warranty Insurance

- Residential builders or developers arrange for home warranty insurance before obtaining a building permit or starting construction.
- Only provided by insurance companies approved by the provincial Financial Institutions Commission.
- Minimum coverage set by provincial government (2-5-10 year warranty insurance).



New Home Statistics 2005/06

Homes enrolled in warranty insurance:

– Single detached	12,630
– Multi-unit	<u>23,854</u>
	36,484

Homes with warranty exemptions:

– Owner-built	4,076
– Multi-unit rentals	<u>1,386</u>
	5,462

Total homes **41,946**



Financial Assistance Statistics: Reconstruction Loan Program

Homeowner Loans

(August 31/06):

- Approved loans 11,944
- Total value \$388 million
- Avg loan/home \$32,500

Housing Co-op Loans

(August 31/06):

- Approved 57 co-ops/
3,253 units
- Total value \$194 million
- Avg loan/home \$29,000

Total approved loans to date: \$583 million



Financial Assistance Statistics: PST Relief Grants

- HPO administers on behalf of the Province
- **Program Stats** (August 29/06):
 - Approved grants 512 stratas
 - Total value of grants \$17.5 million
 - Avg grant per strata corp \$28,953
 - Avg grant per homeowner \$567

REFERENCE NUMBER	INVOICE DATE	NAME	GROSS AMOUNT	DISCOUNT TAKEN	NET AMOUNT PAID
80165 PST RELIEF GRAP	5/3/01	STRATA CORPORATION VIS3815	74,911.73	0.00	74,911.73

Research & Education



- Legislated mandate of HPO
- HPO Board strategic direction – “Become a Strategic Centre for Building Industry Research”
- Goal – to support improvement in quality of residential construction

Types of R&E projects

1. Building industry research and education
2. Consumer information



How is HPO R&E Funded?

- Builder licensing fees
- Work with funding partners to leverage research \$\$
- 2004/05 projects underway:
 - HPO’s financial commitment \$158,300
 - Other partners \$185,300
 - TOTAL \$343,600

R & E Partners

- BCBEC
- Canada Mortgage and Housing Corporation
- BC Housing
- Builders/developers
- Forintek Canada
- Building Officials' Association
- Homebuilders' Association
- Condominium Home Owners Association
- Ministry of Housing
- Universities/Colleges – BCIT, Camosun, UBC, Thompson Rivers University

R & E Projects – Industry



RESEARCH

- Field investigation on ACQ treated wood
- Effects of green building rating systems on durability
- Indoor humidity control in multi-unit high-rise
- Field measurement of wind-driven rain
- Building Envelope Research bibliography
- Monitoring performance of rainscreen wall assemblies

R & E Projects – Industry



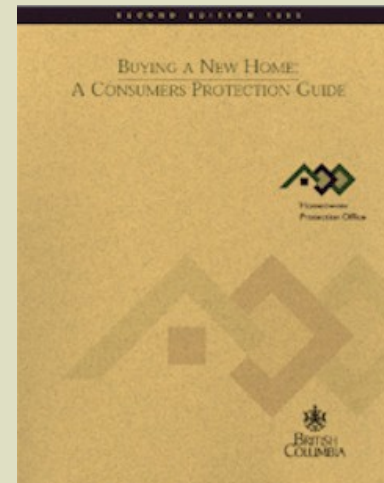
EDUCATION & BEST PRACTICES

- Best Practice Guide for Windows
- “Building Smart” Seminars
- Building Envelope Detail Guide for Houses
- Basic course on wood-frame house construction
- Real estate course on building design & construction



R & E Projects - Consumers

- *Updated* Consumer Protection Guide – Buying a Home Update
- Consumers Guide to Home Warranty Insurance
- Consumer Surveys
- *Maintenance Matters*



Maintenance Matters

Education Bulletins for Strata Owners

- Elevate the importance of building envelope maintenance
- Communicate that lack of maintenance comes with a cost
- Support owners/stratas to make informed decisions



Maintenance Matters

Why building envelope maintenance?

- Avoid major costly damage
- Maximize service life
- Preventative, not reactive
- Protect the value of your investment
- Legal responsibilities
- Home warranty insurance



Homeowner Protect Act

Regulation: Maintenance Exclusions

11 (1) **A warranty provider may exclude** any or all of the following items from home warranty insurance:

(e) any damage to the extent that it is caused or made worse by an owner or third party, including

(i) negligent or **improper maintenance** or improper operation by anyone other than the residential builder or its employees, agents or subcontractors,

(ii) failure of anyone, other than the residential builder or its employees, agents or subcontractors, to comply with the warranty requirements of the manufacturers of appliances, equipment or fixtures,

(f) **failure of an owner to take timely action to prevent or minimize loss or damage**, including the failure to give prompt notice to the warranty provider of a defect or discovered loss or a potential defect or loss;

Maintenance Matters

Consequences of deferring maintenance

- Accelerated damage
- Poor performance of building envelope
- Increased liability
- Loss of warranty coverage
- Increased costs over the long-term



Maintenance Matters

Get answers to common questions:

- What needs to be maintained?
- Why is maintenance needed?
- What maintenance must be performed?
- How often is inspection and maintenance needed?
- Who should be called for service?

Paints, Stains and Coatings



Paint peeling from a metal flashing: Good quality factory-finished metals would have better endurance than this site-painted metal flashing.

To make sure your building does not fall into disrepair you have to know what types of paint and coating protection your home has, why it must be maintained, how to maintain it, how often to maintain it, who to call, and have a written plan to maintain the surfaces that protect your home's appearance and condition. Often, it is realized that a maintenance plan is needed for paints, stains and coatings when it is too late and damage has already occurred. The purpose of this bulletin is to draw attention to maintenance issues and provide basic information to help prevent avoidable and expensive problems.

Note: This bulletin discusses the maintenance of paints, stains and coatings related to the exterior surfaces of the building envelope. It does not cover maintenance or re-painting for home interiors.

What are paints, stains and coatings and where are they applied?

There are many different types of paints, stains and coatings used to cover the various surfaces of the

building envelope. Have you ever noticed how a building looks clean, the exterior isn't faded, the wood trim is in perfect shape, metal parts are not rusted or scratched, and it even smells new. As the new appearance disappears, so does the protection provided by paints, stains and coatings.

building envelope. Paints, stains and coatings improve the visual appearance of the building, protect the underlying surface (wood, metal, concrete, stucco or plastic) from the damaging effects of the sun, wind and rain. They also help prevent decay and corrosion from occurring.

The appropriate product must be used for each application or you will not get the protection the building needs to keep looking new and in good physical condition.

The table on the following page lists different types of paints, stains and coatings and where they are commonly applied.

Often, it is realized that a maintenance plan is needed for paints, stains and coatings when it is too late and damage has already occurred.



Maintaining your building envelope
This publication is one in a series of bulletins designed to provide practical information on the maintenance of the building envelope of multi-unit residential buildings including townhouses, low and high-rise residential buildings.



What is a building envelope?
The building envelope includes all parts of the building (assemblies, components and materials) that are intended to separate the interior space of the building from the exterior climatic conditions. It includes, for example, the foundation, exterior walls, windows, exterior doors, balconies, decks and the roof.

Who should read this bulletin?
Anyone who lives in or looks after a multi-unit residential building should read this bulletin including residents/unit owners, strata councils, housing co-ops, maintenance managers, property managers or building owners. Proper maintenance of the building envelope can help prevent damage and avoid costly repairs in the future.

This bulletin is funded by the Homeowner Protection Office in partnership with Canada Mortgage and Housing Corporation and Polygon Homes Ltd.



- # Paints, Stains and Coatings
- More than a matter of appearance
 - Annual inspection
 - What to look for – when to paint next
 - Professional applicator/contractor



Maintaining Your Roof



Many people don't think about their roof until a leak appears. However, like other parts of your home or building, the roof requires ongoing maintenance to prevent leaks, to identify minor problems before they become major costly problems and to maximize the amount of time before you need to replace your roof. This bulletin provides practical information on how to maintain your roof.

Types of roofs

Together with walls and windows, roofs are a primary component of a building that keeps out the rain and protects the inside of the building and contents. There are two main types of roof systems: low-slope and steep-slope roofs.

Most multi-unit residential buildings use some form of low-slope roofing, while townhouse buildings and single detached houses generally use steep-slope roofing. Both roof types are used in some buildings.

Low-slope roofs have a waterproof membrane and a series of drains throughout the roof area to remove water from the roof surface. Since they are low-slope, these roofs must be water-tight in order to function properly. The roofing membrane is either applied as a liquid that cures or dries to form a waterproof surface, or fabricated from pre-manufactured sheets joined together to create a surface impermeable to water. These membranes all work the same way in that they seal all openings and

penetrations through the roof to prevent water leaks from occurring.

Steep-slope roofs have overlapping roofing materials to create a surface that, together with gravity, sheds water effectively into a drainage system such as eaves troughs or gutters. Steep-slope roofing materials include asphalt or fiberglass shingles, cedar shakes, slate tiles, concrete or clay tile, or sheet metal panels.

Membranes all work the same way in that they seal all openings and penetrations through the roof to prevent water leaks from occurring.



Homeowner
Protection Office

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Maintaining Your Roof

- Don't wait for a leak
- Extend "leak-free life"
- Avoid premature damage inside & out
- Spring & fall inspection
- Checklist of common inspection and maintenance items



Homeowner
Protection Office

Avoiding Condensation Problems

Have you ever noticed water droplets on your window or black staining on the drywall of your walls? Have you ever wondered why the moisture returns around your windows after you have wiped it away? This type of moisture is from the interior air and is commonly referred to as condensation.



Condensation forms first on the coldest surfaces of a room, usually on glass surfaces of windows and doors.

What is condensation and how does it form in my home?

Condensation occurs in your home when moist air comes into contact with a surface which is at a lower temperature. Moist air contains water vapour — commonly referred to as humidity. Indoors, we can increase humidity through our activities and lifestyle. If a surface in your home is cold enough, the air in the immediate vicinity of the surface will be cooled sometimes causing the moisture in the air to condense or change into a liquid on the surface.

Condensation forms first on the coldest surfaces of a room, usually on glass surfaces of windows and doors. These surfaces are typically cooled by lower exterior temperatures during the winter months much more easily than the walls which are kept warm by insulation. For example, if it is cold enough outside and/or warm and humid enough inside, condensation may occur on or around your windows resulting in fogging, water or ice on

the windows themselves or even a puddle of water on the window frame or sill. Other examples of condensation in your home can include damp spots or mildew on outside wall corners, closet walls or baseboards. Areas of your home with poor air circulation, such as behind furniture or in a cupboard or closet, can also be susceptible to condensation.

If a surface in your home is cold enough, the air in the immediate vicinity of the surface will be cooled sometimes causing the moisture in the air to condense or change into a liquid on the surface.

A small amount of condensation appearing on a surface may not necessarily be a problem, depending on the amount of moisture that forms,



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Avoiding Condensation Problems

- What is it?
- Why is it a problem?
- Sources of moisture
- How to avoid?
- Dealing with persistent problems



Homeowner
Protection Office

Residential Windows and Exterior Doors



This bulletin presents information on inspection and maintenance to ensure good long-term performance of windows and exterior doors. The information also aids in recognizing when professional assistance is required.

Types of windows and exterior doors

A useful first step in window and door maintenance is to become more familiar with the common terms used to describe windows and doors and their various parts.

There are two main types of windows – those that open, referred to as “operable windows”, and those that do not open, referred to as “fixed windows”. Your home may have different types of operable windows, such as swing, casement, louver, horizontal slider, or tilt and turn windows. The opening part of operable windows is often referred to as a “sash” or “vent”. The window frame can be made of wood,

Check out the “For more information” section at the end of this bulletin for other publications that provide more detail on terminology and types of windows and doors.



Windows and exterior doors deteriorate over time due to age, wear and tear and the weather, and require ongoing inspection and maintenance.

metal or vinyl. The transparent portion of the window is typically referred to as the “glazing”.

Exterior doors generally come in two varieties: hinged or sliding such as sliding patio doors. Exterior doors are generally made of metal, wood, or fiberglass over a foam core. Sliding patio door frames are usually made of metal or vinyl, and resemble a large horizontal sliding window.

Operable windows and exterior doors share similar methods of providing an air and weather seal, or what is commonly referred to as weather-stripping. Weather-stripping reduces air infiltration, and is located between the frame and the operable window or door. There are two main types of weather-stripping: “compression” type seal that gets squeezed between the sash/door and frame of hinged products, and “brush-type” seal for sliding windows or patio doors.

Skylights are a specialty item and are not specifically addressed in this bulletin, although most of what is described for windows and doors can also be applied to skylights.

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Windows and Exterior Doors

- Extend service life
- Avoid damage
- Spring/fall inspection
- Checklist of common window and door maintenance items



Maintenance Matters

Bulletins under development:

5 Balconies, decks and railings

6 Sealants

More planned

Maintenance Matters

How will the bulletins help?

- Informed strata owners
- Know when to call professionals
- Easier to make good decisions
- Properly maintained building
- Where to get more info

Maintenance Matters

How to get copies?

- 1) Call HPO at 1-800-407-7757
- 2) Visit www.hpo.bc.ca

BCBEC's Building Research Committee (BRC)

- BRC committee formed in 2004
- “Think tank” on building envelope issues
- Meetings 2x per year
- Next meeting Thursday Nov 9/06
- Your input welcome!
- Email jbelle@hpo.bc.ca

Thank-you!

