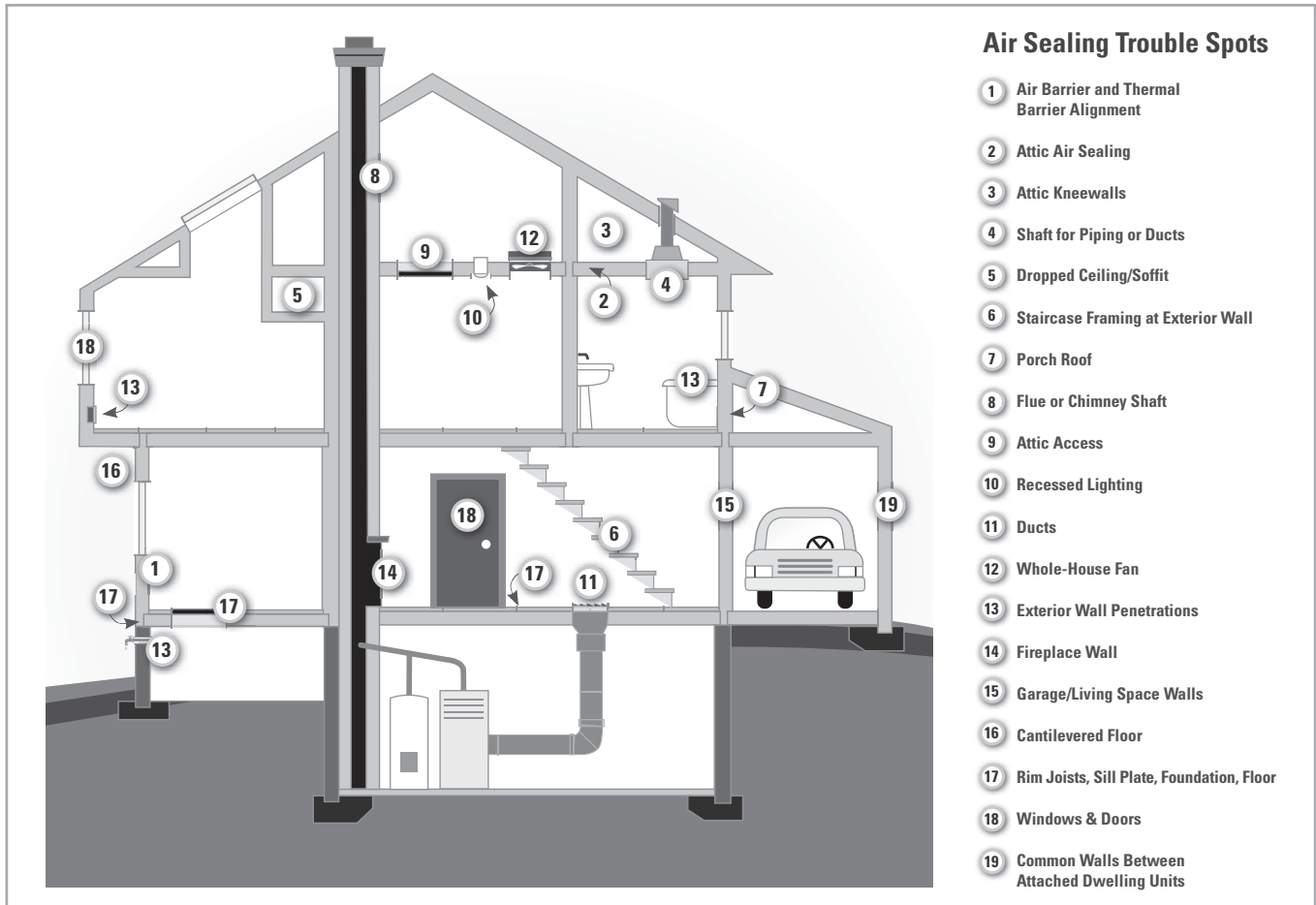


TO EVERYTHING THERE IS A SEASON

Here are ways to make your older home more comfortable any time of year



A guide to the most frequent sites for air leakage. Reprinted with permission from U.S. Department of Energy, Building America Best Practices Series, Vol. 10: Retrofit Techniques and Technologies: Air Sealing A Guide for Contractors to Share with Homeowners (Courtesy: Pacific Northwest National Laboratory & Oak Ridge National Laboratory, 2010).

First address moisture and structural integrity – then seal air leaks to achieve energy efficiency.

Our Maine homes endure a range of temperature and humidity extremes. Although many houses have withstood some 200 years or more of season changes, they still need periodic upkeep. The very idea can be overwhelming, but step one is to inspect the outside of your historic home each year. Is the roof leaking? Does the siding need repair or replacement? Can you see mold or mildew? Is there efflorescence on brick surfaces, peeling paint, or cracked masonry? Are there cracks in the basement walls?

This kind of scrutiny each year, with a particular focus on signs that moisture is getting in or staying in, is the most important way you can protect your home's function, performance, and energy efficiency.

Moisture is often the problem

Energy conservation is key to any building's performance and longevity, and problems often stem from deferred maintenance. Significant areas of heat loss are often clues to moisture-related structural damage. Any structural problems or moisture issues need to be resolved before you embark on energy improvement projects.

Start by looking for moisture – including puddles,

buckled siding, or mildewed clapboards. **Here are some reasons you may find moisture inside your home:**

- High water table in the soil or prolonged periods of high humidity
- No vapor barrier beneath the basement floor
- Inadequate or no exhaust ventilation in the basement, bathroom, or laundry room
- No attic or roof ventilation
- Inadequate air exchange
- Condensation from cold water pipes

And here are some reasons you may find moisture on the outside:

- Leaks in roof, wall, exterior trim, window and doors, or faulty mortar joints
- Blocked gutter systems, downspouts, or leaders
- Poor drainage of the site, including slopes pitched toward, rather than away from, the foundation
- Poorly designed or blocked foundation perimeter drains, or no drains at all
- Exterior foundation walls that are cracked or lack waterproofing

For more ways to find sources of moisture use this checklist from *This Old House*, available at: <http://img2.timeinc.net/toh/static/pdf/fall-checklist.pdf>.

Check your indoor air quality first

Americans spend up to 90% of their time indoors, and much of that indoor air is more polluted than the air outside. The culprit is usually inadequate ventilation. Even houses that have air leaks can have higher than

usual amounts of indoor pollutants, including asbestos, biological pollutants (pets and pests), carbon monoxide, dust, mildew, mold, pesticides, radon, and volatile organic compounds.

Assessing your indoor air quality is an important first step before beginning any energy projects, especially before sealing things up. Walk through your home looking for pollutants. Some, like mold, mildew, asbestos, and volatile organic compounds, can linger in the basement or garage. Exhaust ventilation should be working well in areas with high moisture and pollution, like bathrooms and kitchens. And carbon monoxide detectors help detect and warn you of unhealthy air quality.

The EPA has published a guide to assessing indoor air quality, identifying pollutants, and recommending solutions <http://www.epa.gov/iaq/pubs/careforyourair.html>. If you find mold, asbestos, or other toxins you're not sure how to deal with, it's time to call a professional. The Maine Association of Building Energy Professionals has a listing of indoor air quality technicians at <https://mabep.memberclicks.net>.

Air Sealing

About a third of a home's energy costs come from air leakage, experts say. The good news is that most air sealing can be done by a do-it-yourselfer with a little study and preparation.

Remember your ABCs: Start in the Attic, move to the Basement, then to the Center of the house. This takes

continued on page 4



PHOTO: HEATH PALEY

Greater Portland Landmarks is urging the City to name the Portland Company complex as a historic district

PORTLAND'S HISTORIC PRESERVATION Board has nominated the Portland Company complex for historic district designation, with a first workshop to be held in mid-March. In February, the Planning Board endorsed a zoning change that expands the range of possible uses there to include residential, retail, hotel, and mixed uses. Greater Portland Landmarks believes that the protections afforded by historic district designation are essential to managing change as plans move forward to redevelop the site.

The Portland Company complex is the only relatively

intact 19th century waterfront industrial site surviving on Portland's peninsula. Its landmark quality buildings illustrate the story of 19th century Portland's industrial prowess in both rail and marine transportation, which helped establish Portland's prominence in international business and trade. The whole complex has been determined eligible for the National Register of Historic Places by the Maine Historic Preservation Commission.

In a study commissioned by the City, Sutherland Conservation and Consulting documented the historic significance of the site locally and nationally, and identified

fourteen historic buildings built between the mid-1840s and the 1950s that survive on the 10-acre waterfront site. The Preservation Board will review the Sutherland report findings and a new study of structural integrity of the historic buildings to make its recommendation to the planning board and ultimately the city council.

The Portland Company introduces and defines Portland from the water, and the character of development on the site will have tremendous impact on surrounding neighborhoods and the City as a whole. More information and to get involved: www.portlandlandmarks.org. ■

Air Sealing

continued from page 3

advantage of the natural physics of heat and air movement. First you'll stop warm air leaking out; next you'll reduce air coming in. The goal is to create a continuous air and thermal barrier for your home.

Effective air sealing targets such places, where the line between inside and outside is broken, and areas where divisions between floors, stories, or rooms are blurred. Draw a sketch of your house. You'll find that some spaces (mudrooms, eaves, and attics) could be considered both "inside" and "outside" areas. Consider the aspects of your house that determine which areas are inside or outside. For example, if the attic floor is insulated, it's a demarcation between the inside and outside. But it may also be penetrated by elements like

a chimney, plumbing vents, or recessed lights.

Your own experience of your home will help you find air leaks. Where do you feel drafts? Where do you see moving cobwebs? Look for dirty patches of insulation, which are good indicators of air leaks. Another way to find leakage is to walk around with a burning stick of incense, following common-sense precautions to prevent fire or burns. The smoke will follow typical patterns of air leakage and movement.

Take your incense and pay particular attention to the places indicated on the illustrative diagram created by the Department of Energy on page 3:

Different types of leaks call for different types of air sealing material — weather-stripping, caulk, backer rod, spray foam. The EPA has a good guide on what works best where http://www.energystar.gov/index.cfm?c=diy.diy_index. Another consideration when choosing your materials is how easily it's installed and

whether it's reversible. Backer rod is easily removed and replaced, as is latex caulk and most types of weather-stripping. Spray foam is permanent, messy, and difficult to remove. Ask yourself, "Will I need to be able to un-do this? Will the next homeowner?"

If you don't want to tackle this yourself, there are many professional air sealing contractors in Maine who can help you. A list can be found at <https://mabep.memberclicks.net>. Be sure to ask contractors for references and for their experience working on older buildings. When deciding upon an air sealing strategy, keep in mind the preservation axiom of reversibility. ■

Excerpted from *The Energy Efficient Old House*, by Anne Stephenson and Christopher W. Closs, edited by Hilary Bassett, and published by Greater Portland Landmarks in 2011. Available in print at Landmarks offices and online at www.portlandlandmarks.org

furnish + decorate + customize

HOME REMEDIES

83 WEST COMMERCIAL STREET, PORTLAND, MAINE
www.maine fabrics.com · 207 899.0135

★

FABRICS · FURNITURE · GIFTS · HOME DECOR
 CUSTOM SEWING · RUGS · WINDOW DRESSINGS
 ACCESSORIES · REUPHOLSTERY

★

MON – FRI 10:00 am – 6:00 pm | SAT 10:00 am – 4:00 pm

Ed Gardner & Ocean Gate Realty support the efforts & advocacy of Greater Portland Landmarks to protect and revitalize Historic Greater Portland!

 SOLD West End Portland	 East End Portland \$740,000- \$875,00
 Downtown \$997,500	 SOLD In town Portland


Ed Gardner
 511 Congress St.
 Portland, ME 04101
 207-773-1919 Ext 2
www.Ed-Gardner.com

