Maintenance & Efficiency in Your Old House and the Heritage Home Program

Presented by Cleveland Restoration Society

Sponsored by the North Olmsted Landmarks Commission

Landmarks Commission

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- Jim Morse, Vice Chair
- Elizabeth Cardarelli
- Tom Dubowski
- Paul Schumann
- Sarah Egan-Reeves
- Kevin Kearney
- Gretchen Schuler

- Staff:
  - Kimberly Lieber, Director of Planning & Development
  - Bryan O'Malley, Assistant Director of Law
  - James Aspery, Planner
  - Nicole Rambo-Ackerman, Administrative Assistant
  - Randy Johr, SITES student

Duties of the Landmarks Commission

- Identify sites and buildings in the city with cultural, social, economic, political, architectural, educational or historical significance. Recognize and promote these assets.
- Educate residents about the historical and architectural heritage of the community.
- Maintain archives of city records and historical documents.
- Identify landmarks, designate historic districts and issue Certificates of Appropriateness for the alteration or demolition of such structures.

Maintenance and Efficiency in Your Old House

Presented by Cleveland Restoration Society

Established in 1972

- Is the largest non-governmental, regional historic preservation organization in Ohio.

- Has a staff of 12 professionals.

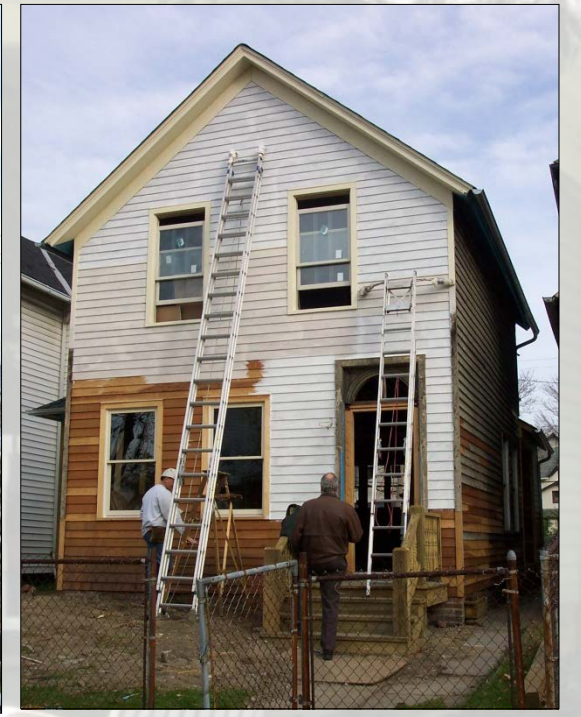
- Is headquartered in a restored historic building in Cleveland.

- Non-profit assisting homeowners, commercial buildings, sacred places, municipalities & organizations

Preserve Neighborhood Character

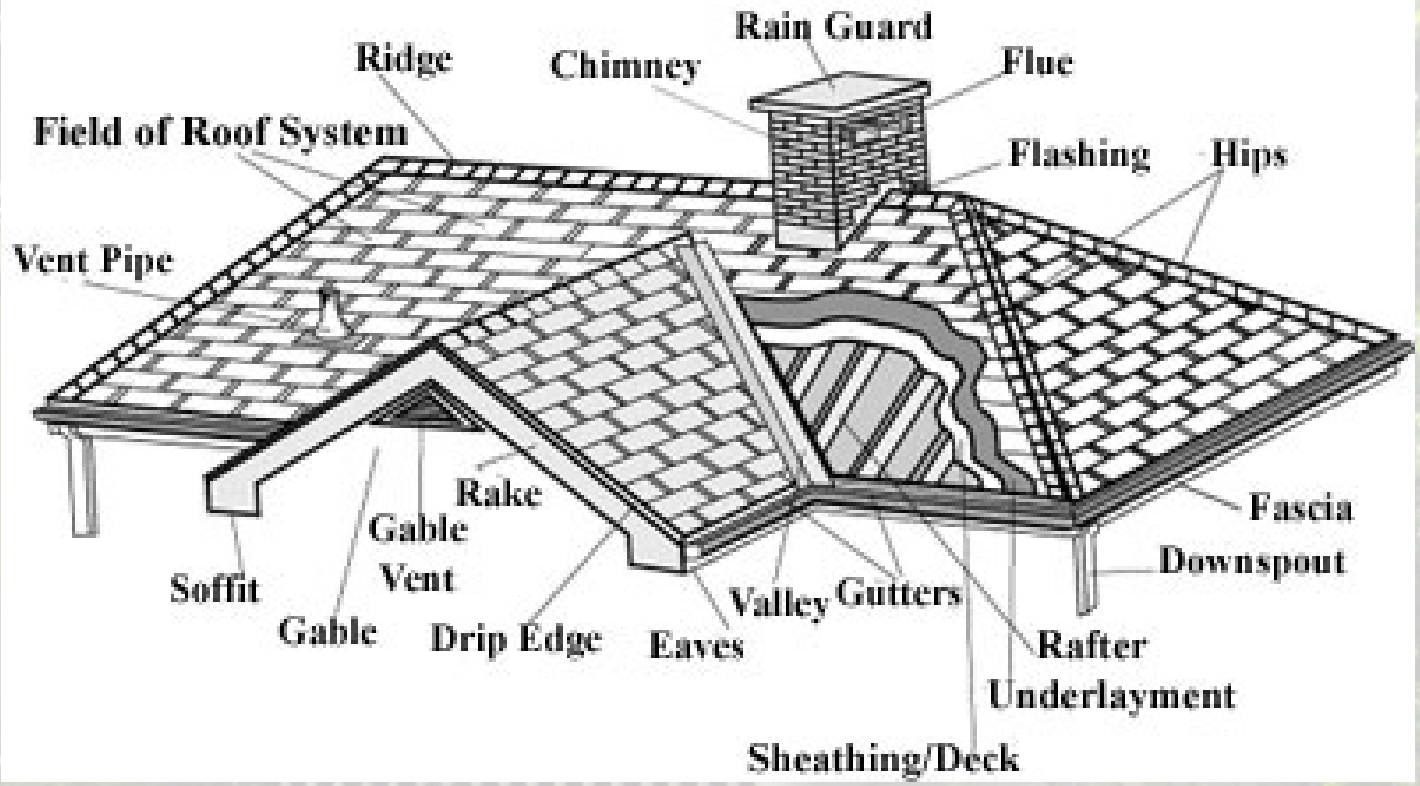
The Cleveland Restoration Society uses the powerful tool of historic preservation to revitalize our diverse communities, strengthen the regional economy, and enhance the quality of life in northeastern Ohio.

Taking Care of Your Old Home's Exterior



Roof Maintenance

- Shingles, Slate, Tile and Flat Roofs
- Chimney
- Flashing
- Gutters and Downspouts



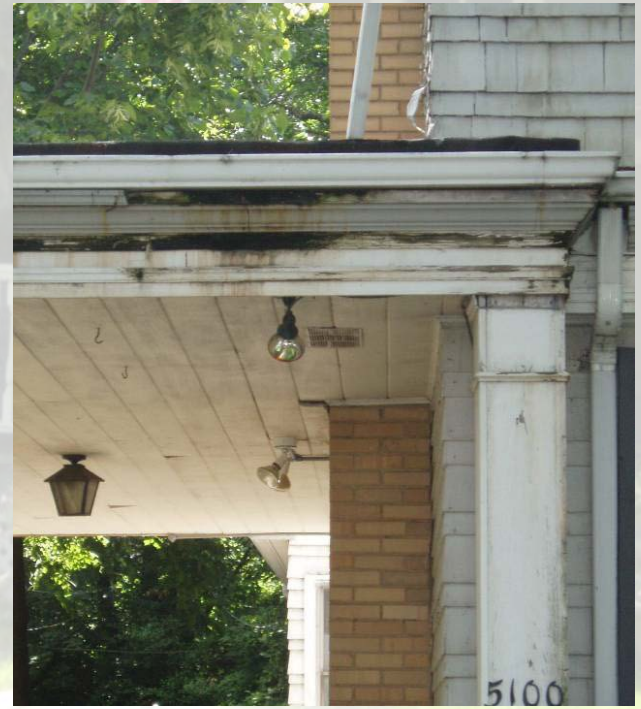
Why is a Sound Roof So Important?

- All parts must work properly together
- Areas of missing shingles create opportunity for more loss
- The smallest drip over time will add up to a lot of water damage
- Insects and fungi love moist, dark environments

Know Your Roof Material

Gutters! They Keep Water Going…

…far, far away
from your home!



Exterior Wood Cladding

- Shingles & Clapboard (Lap) siding
- Trim

Paint Issues

Why Does Paint Fail?

- Inadequate surface preparation
- Inappropriate painting conditions
- Incorrect application
- Moisture problems within the house

Cracking & Flaking

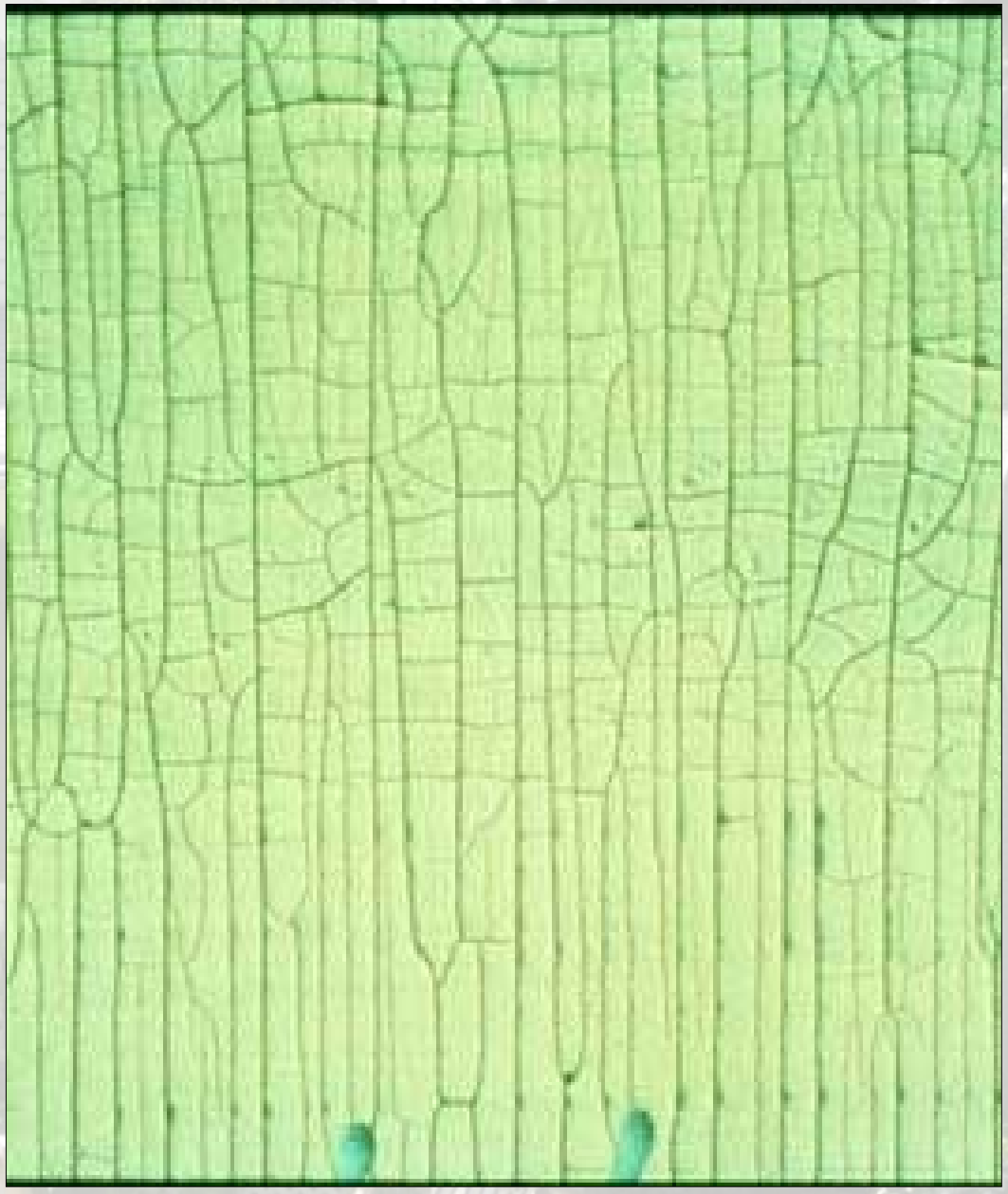
- Splitting of older dry paint film through at least one coat.

- Problem begins as a hairline crack.

Alligatoring

- Patterned cracking in the paint film resembling the scales of an alligator.

- Can often times crack down to bare wood. A more severe form of cracking.



Blistering & Wrinkling

Bubbles or wrinkles result from loss of adhesion and lifting of the paint film from the surface.

Peeling

Paint coating lifting from the surface in sections or sheets.

Paint or Stain?

A Paint Contractor's Scope of Work Should Include:

- Remove loose or failing paint by thoroughly scraping all surfaces down to sound paint or bare wood.
- Sand to feather edges of scraped paint to ensure good adhesion of new paint.
- Clean surface to be painted.
- Prime all bare wood with oil based primer.
- Apply two top coats.
- Provide a warranty.

A Painting Contractor Should NOT:

- **NO** sandblasting
- **NO** pressure washing at high pressures
- **DO NOT** paint bare wood without priming first
- **DO NOT** paint bare wood without checking moisture content
- **DO NOT** paint without thorough surface preparation
- **DO NOT** paint masonry or stone

Damage to Surface

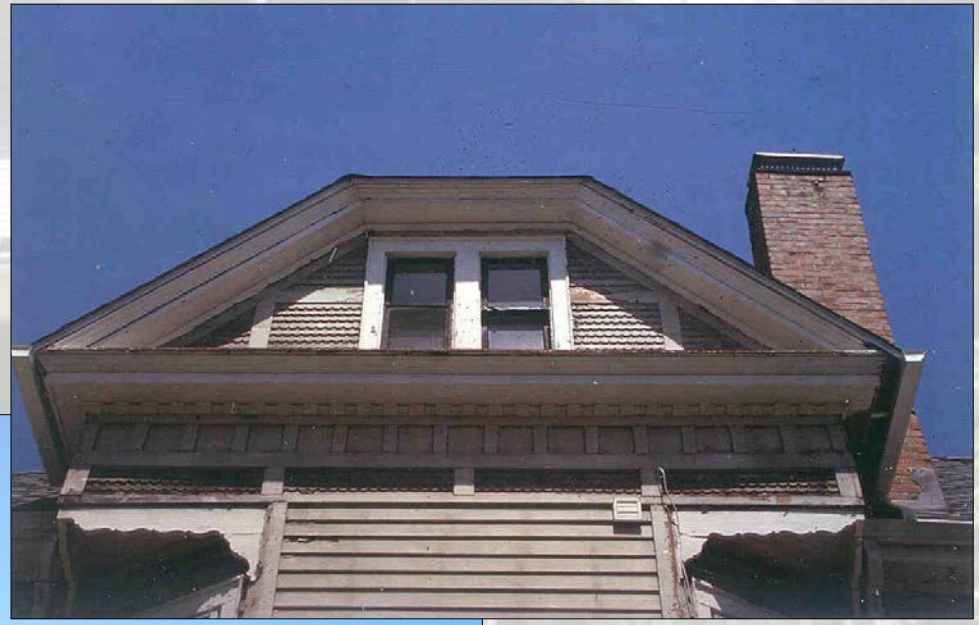
Why NOT Artificial Siding?

- Not a historical material original to the house
- Obscures original architectural features
- Covers up problems
- May accelerate moisture build-up behind siding and interior walls
- Not a durable material, it fades and breaks.

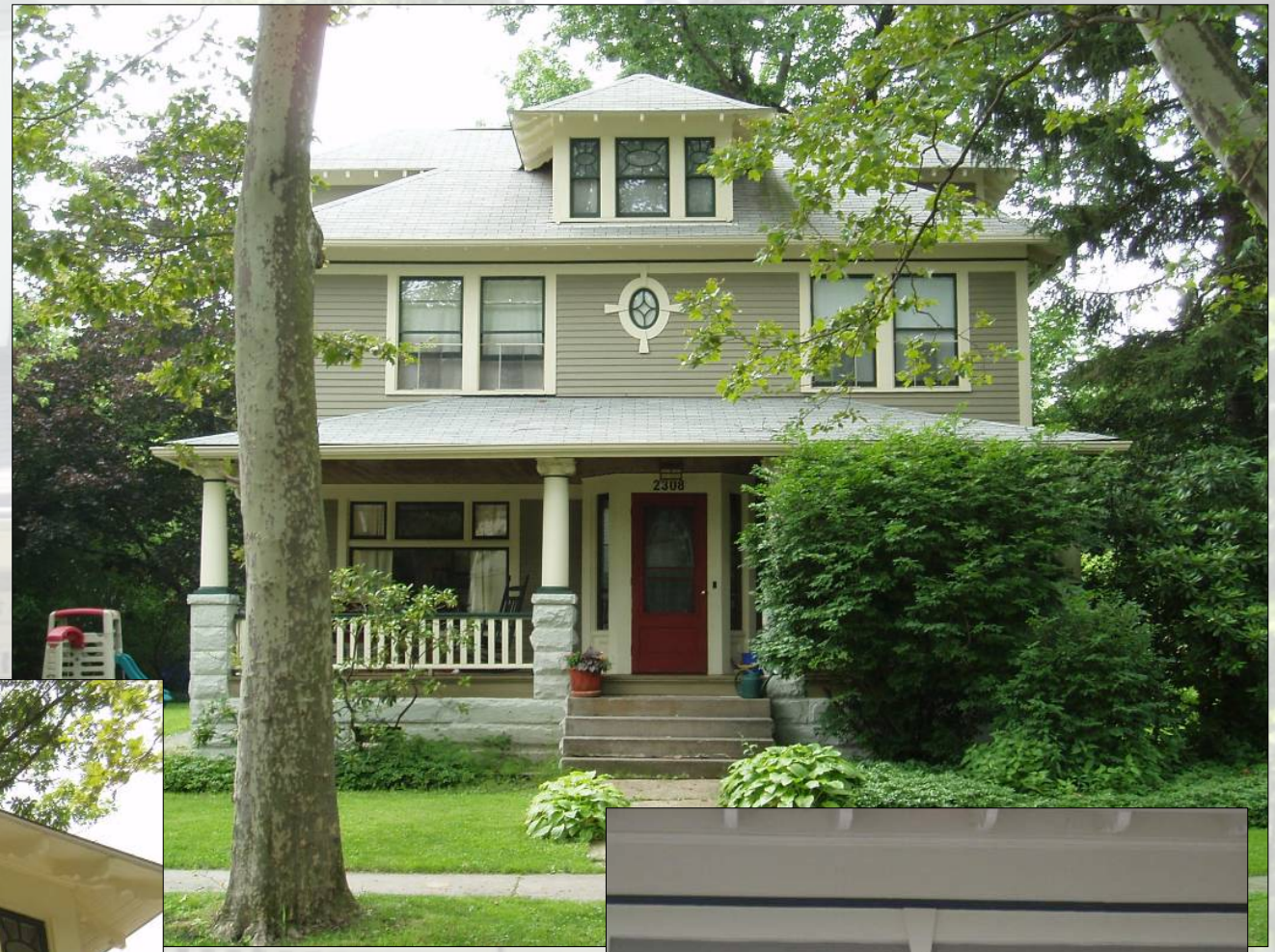
Artificial Siding

- Conceals rot
- Harbors moisture
- Hides bug damage/infestation
- Does not significantly insulate

Architectural Alteration



Vinyl siding hid the architectural details that make this house so unique!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Vinyl

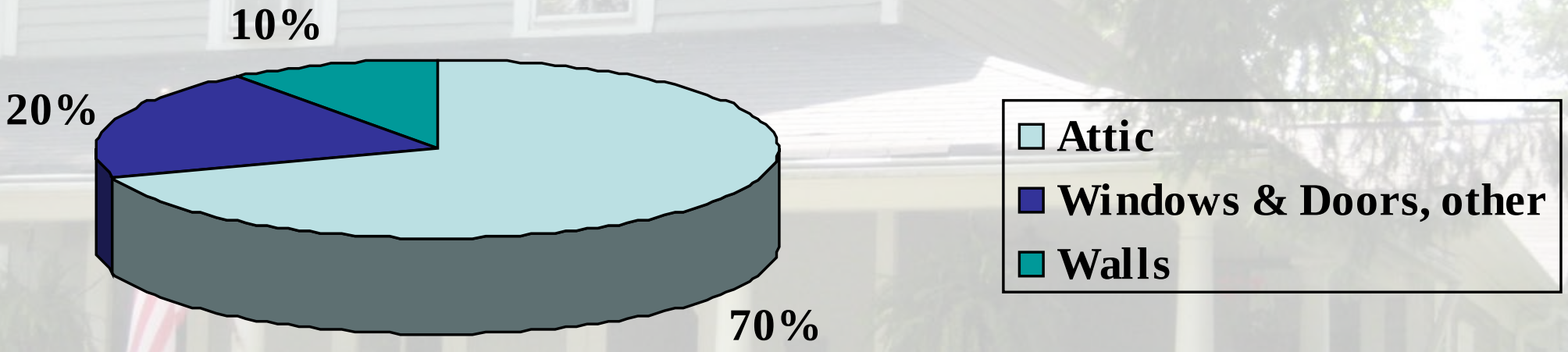
- Is NOT biodegradable
- Can only be made into more vinyl
- Dioxin, a hazardous toxic chemical and carcinogen, is created when vinyl is manufactured or burned.

Siding Alternatives

Windows- Restore or Replace?

- A single pane window has an R-value of R-.9 (less than 1)
- Adding a high-quality storm window raises the R-value to R-2 or R-3
- New double-pane windows like Pella or Andersen will achieve an R-value of R-4.

How Energy is Lost…



Myths:

- Most heat is lost through walls and windows.
- Dollar for dollar, window replacement is the most effective measure in gaining energy efficiency.

Window Repair

- Glass and Glazing
- Sashes and Sills
- Operability

Storm Windows & Weather Stripping

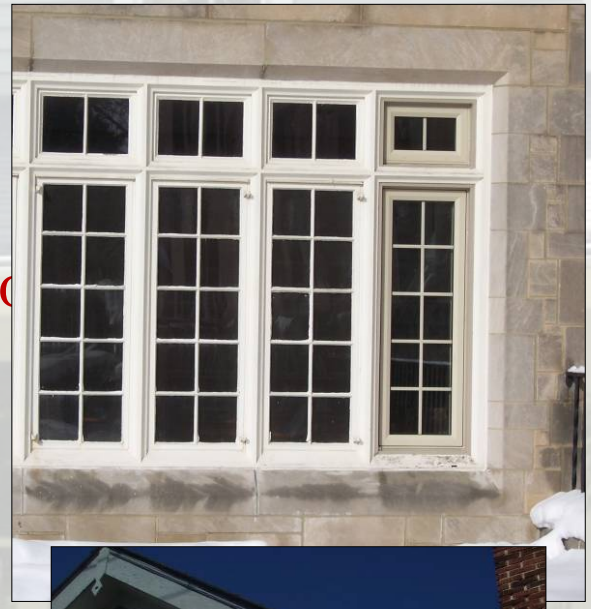
- New storm windows improve efficiency at half the cost
- New storms have been greatly improved
- Applying weather stripping and caulking rope can greatly reduce air leakage

Think Green!

- Impact efficiency without consuming new materials.
- Achieve a high R value.

Why NOT Vinyl Windows?

- Not a historic material original to the house
- Removes original architectural features fro the house
- Will never fit correctly historic houses



- Limitations to color
- Profiles are extremely differen from wood windows
- Muntins/Mullions cannot be replicated correctly
- Are not easily repaired

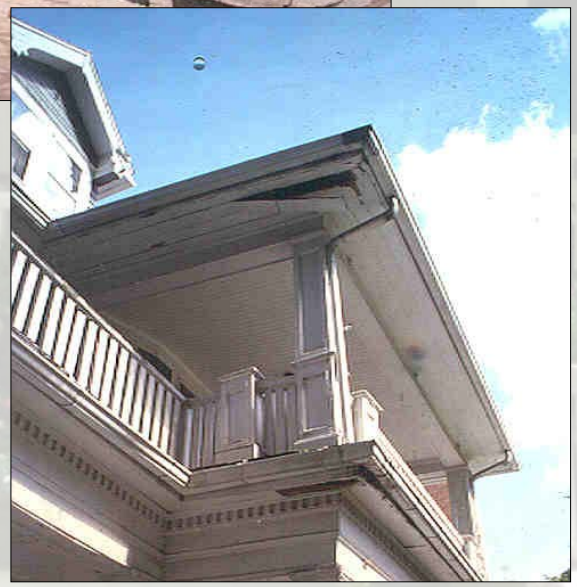
Consider This…

- Old windows can be as efficient as new windows
- New windows are called "Replacements" for a reason… they will need to be replaced again
- Old windows are made of superior materials.

Think Green:

- Don't send sound materials to the land fill
- Vinyl or PVC create toxic by-products
- Retain historic character

Porch Repair



Common Problem Areas

1. Floor and Ceiling
2. Columns
3. Railings and Steps

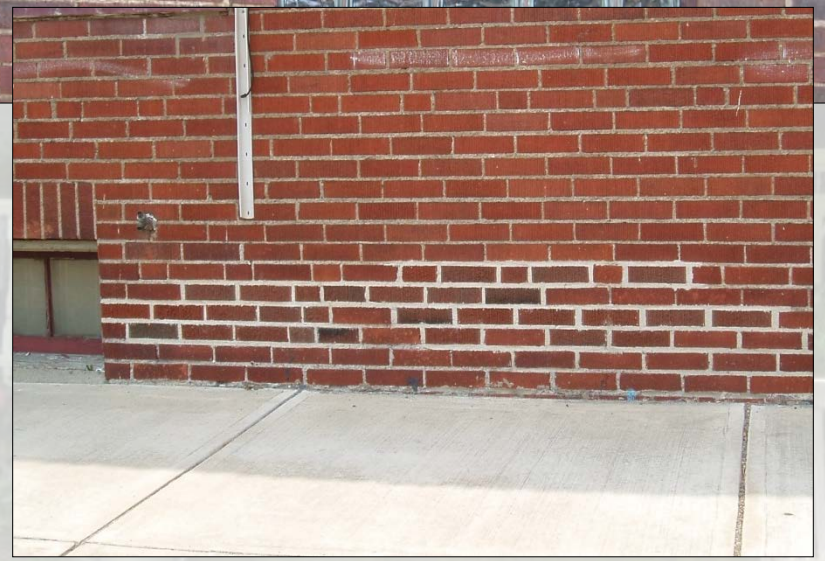
LOW INTEREST REHAB LOANS
CLEVELAND
RESTORATION SOCIETY
216-426-1000

Alternative Porch Materials

Masonry and Foundation

- Masonry conditions: brick/stone or mortar problems
- Window Wells
- Steps and wing walls

Choose the Right Mason



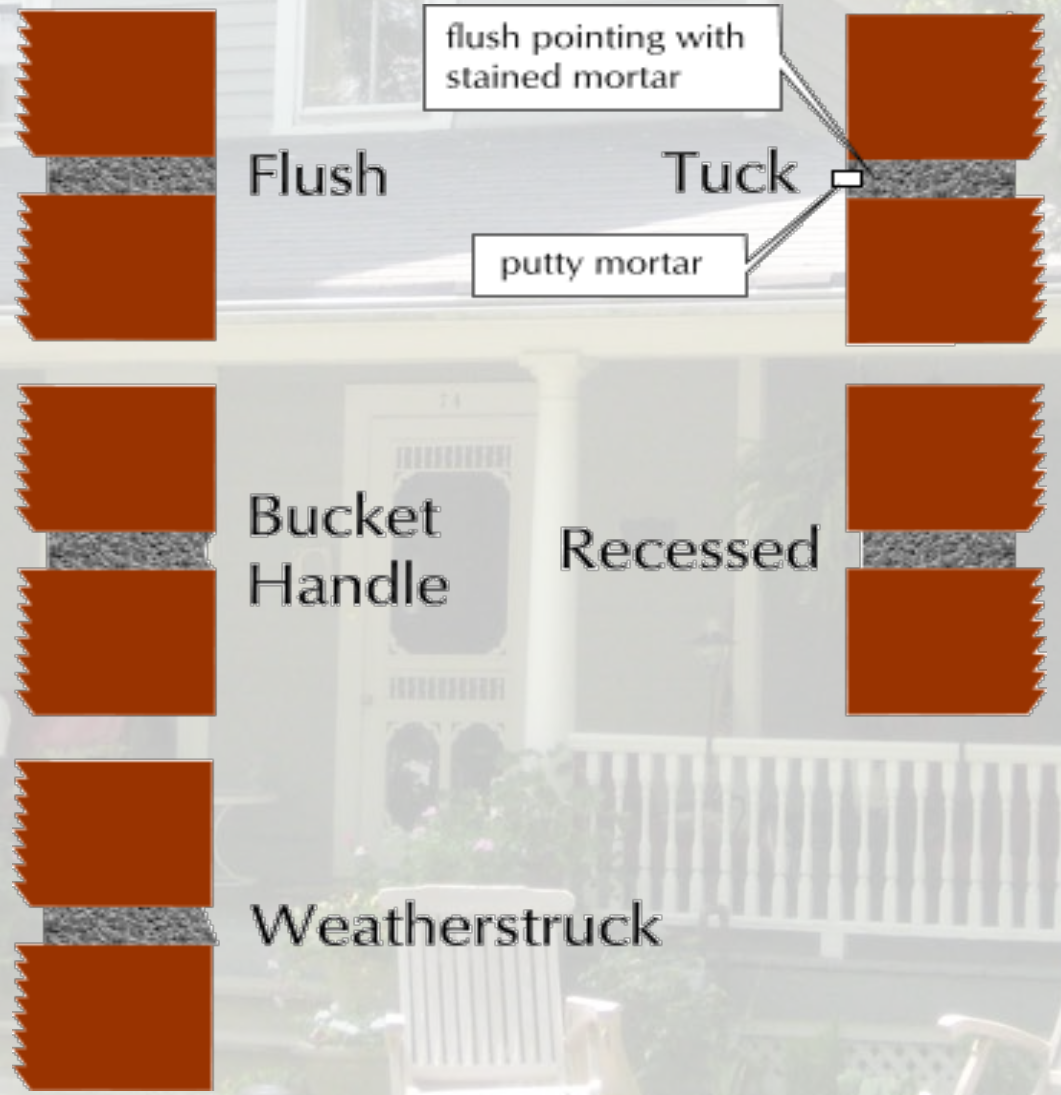
What type of mortar is right for my home?

CEMENT ⟷ LIME

MASONWORK&L

1930's + | 1870's – 1930's | 1800's +

The Finish Is Important, Too!



Waterproofing

The Site

- Driveways and Sidewalks
- Yard

How are Historic Homes Green and Energy Efficient?

How We Consume Today vs. How We Consumed in the Past

TODAY

- Home improvement encourages replacement
- PRICE
- New is better
- Inferior quality of materials
- Quick Fix

THEN

- Home improvement was about repair
- High quality materials
- Durability
- Proper methods/expertise
- Long lasting repair

Repair, Reduce, Recycle

Repair vs. Replacement

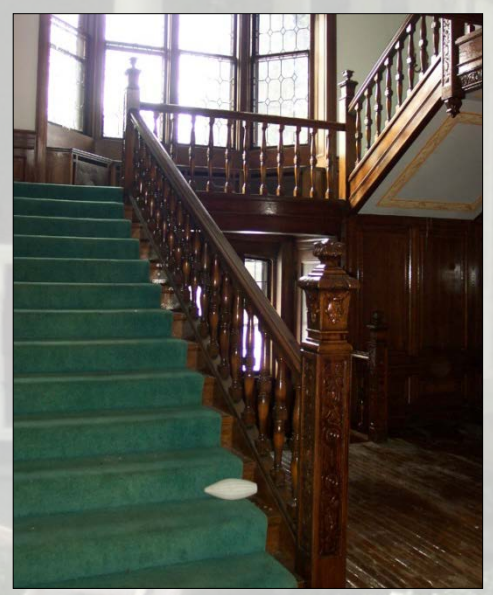
- Do your homework- Solutions can be found
- Make the investment- commit to craftsmanship
- The design of the house will set you up for success- it was built with superior materials

Reduce Waste

- Don't assume replacement
  - When you throw it away, where does it go?

Recycle

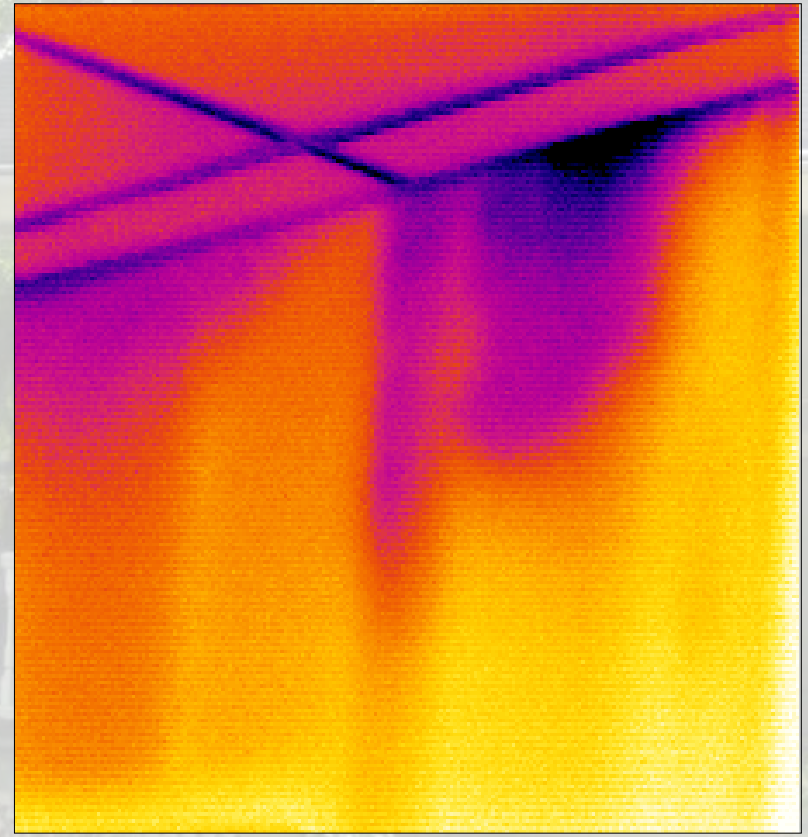
- Consider the quality of a discarded item
- Can you find an already existing item that meets your needs?

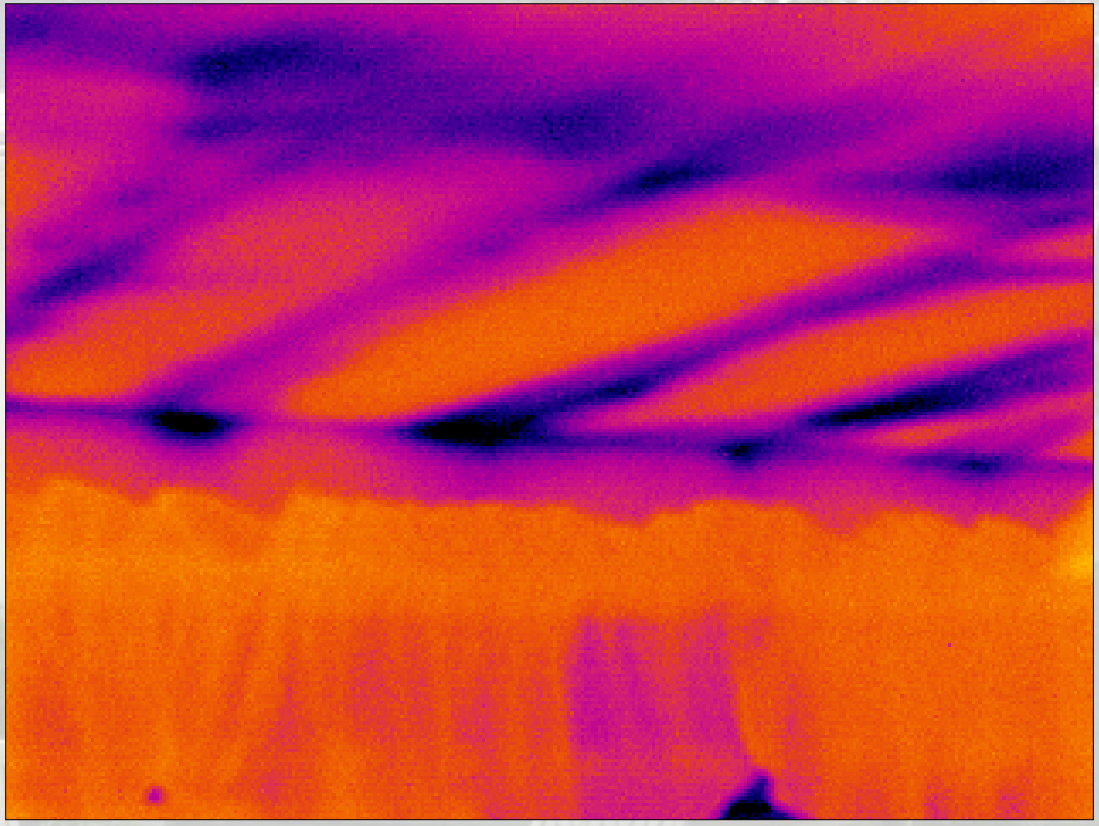


Energy Audits

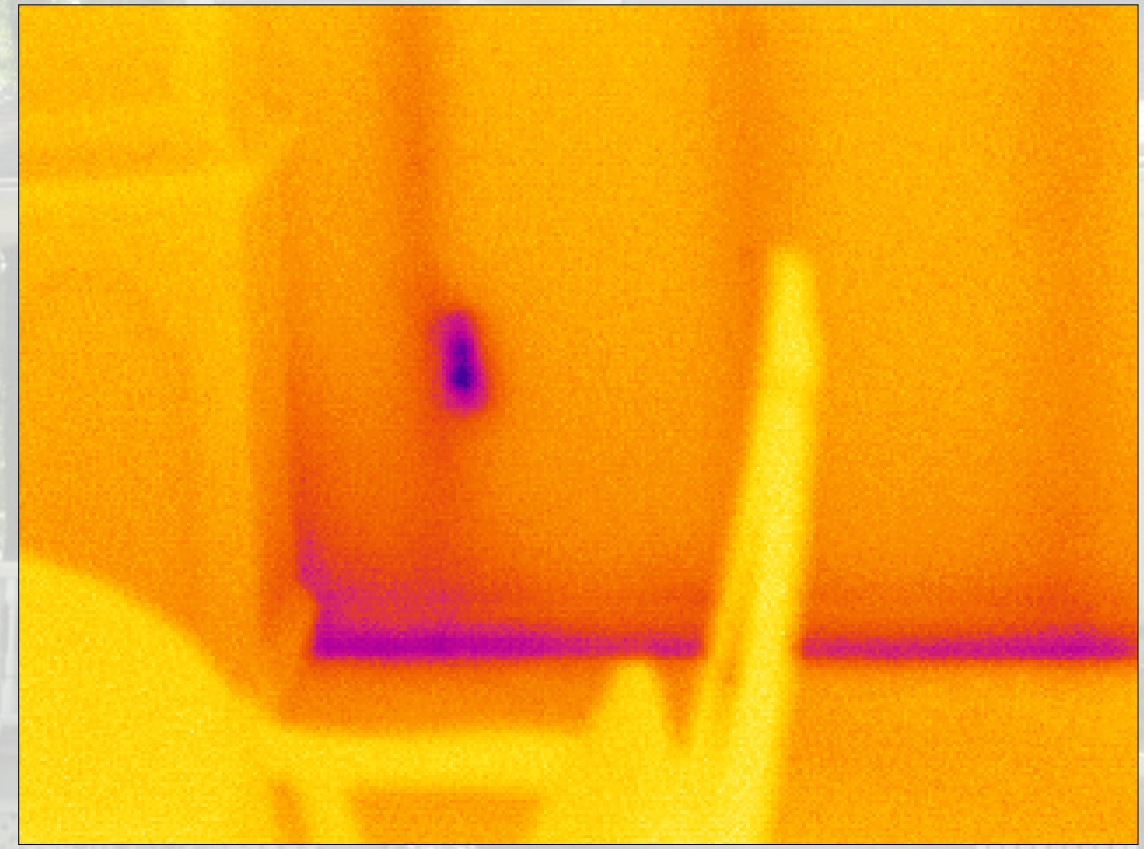
- Evaluates house from top to bottom
- Locates primary air leakage areas with infrared scans and blower door testing
- Measures venting of mechanical systems
- Identifies areas that contribute to inefficiency (chimneys, boilers, etc.)
- Writes specifications on how to improve
- Provides resources for supplies

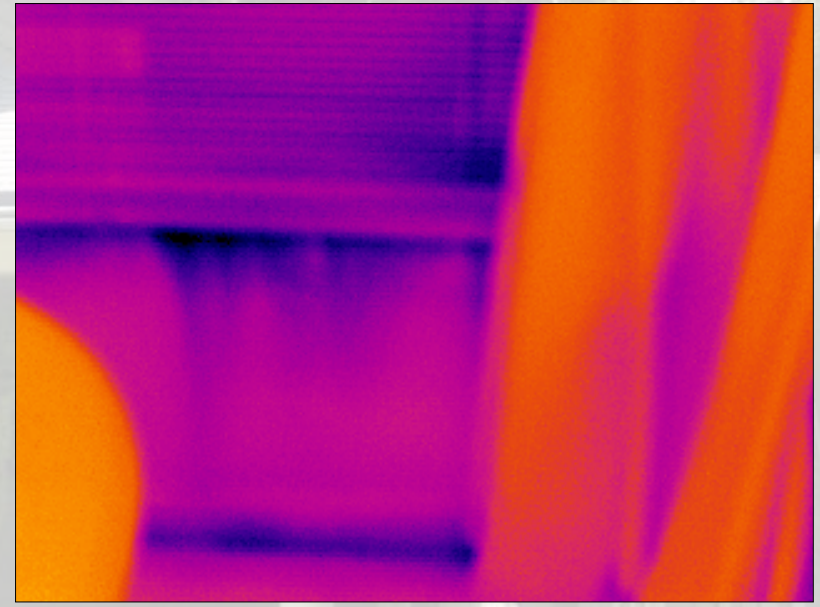
Heat Loss Through Floor and Ceiling



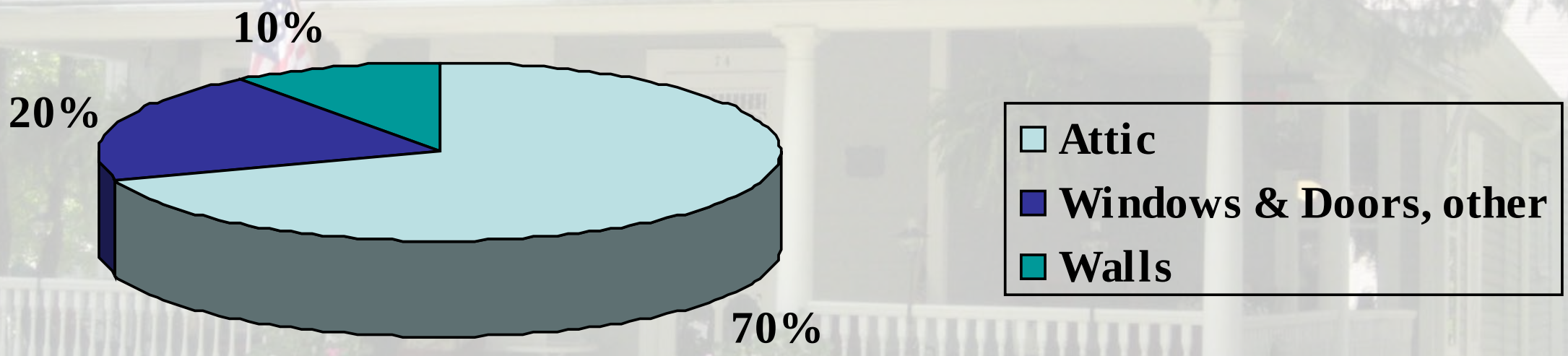


Heat Loss Through Electrical, Plumbing, and Woodwork





How Energy is Lost…



Insulating Your Attic

Insulation Types

- Loose Fill- cellulose, mineral, glass fibers
  - 3 ½ pounds per square foot is recommend
- Batts- fiberglass, cotton, various wools
- Expanding Foam

Reminders:

- Attics should be almost as cold as outside
- Be sure the wall cavities of the house don't open up into the attic
- Allow for adequate ventilation

Ventilate Before You Insulate!

- Install proper ventilation in attic/roof
- Make sure there are no moisture problems
- Monitor indoor air quality
- Make sure carbon monoxide levels are tested
- Make sure exhaust fans vent to the outside

Insulating the Exterior Walls

- Use cellulose treated with boric acid as the fire retardant, rather than sulfates
- Insulation can be blown in to wall cavities via interior walls or exterior siding
- Each cavity must be completely filled between wall framing and on each floor
- Be sure to fill bays

Basement

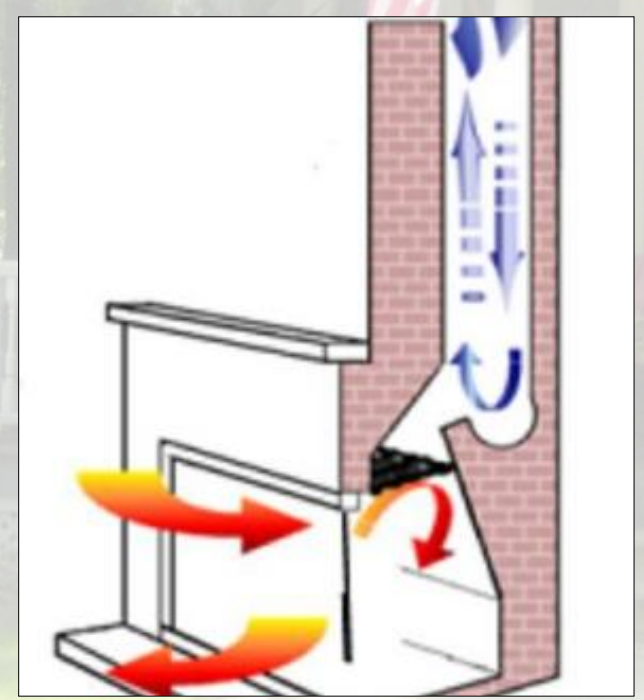
Problem Spots:

- Furnace
- Chimney
- Hot water tank
- Bypasses between floors
- Where the foundation meets the house

Two More Heat Loss Culprits

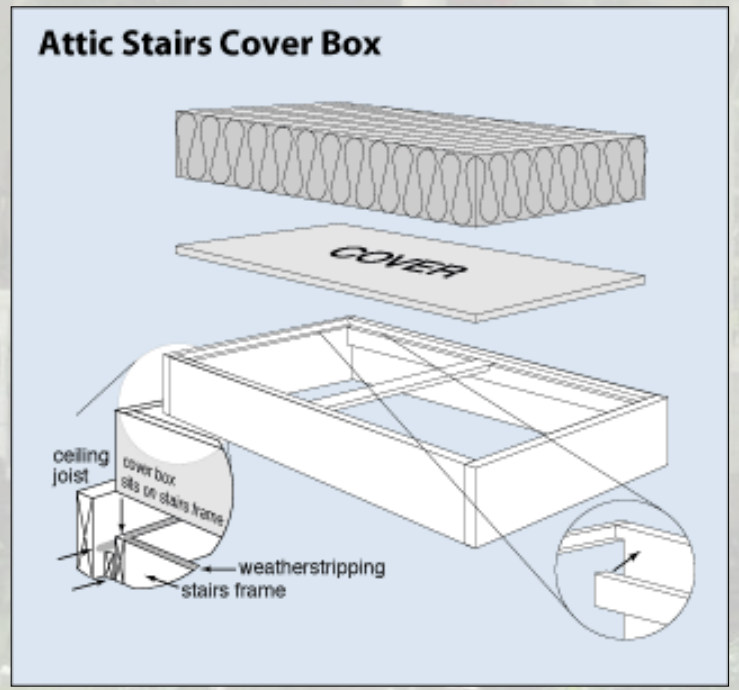
Fire Places

- Draft Stoppers
- Fireplace Doors



Attic Access

- Covers
- Sealers



Energy Consumption

- CFL Bulbs
  - Last 10 times longer than incandescent
  - Use 75% less electricity than incandescent
- LED Bulbs
- Hot water heater- tankless

  25% of every dollar in your home is spent heating water
- Energy Star Appliances
- Reduce plastic consumption- plastic bags, vinyl products

Preservation Values or Green Building Values?

- Avoids unnecessary waste
- Reuses existing materials & reduces the demand on new materials, consumption, packaging, and shipping
- Channels yesterday's energy into reduction of today's energy and related costs
- Embraces conservation principles
- Emphasis on labor not materials

Positive Impact

- Typically 70% of the total cost of the project goes towards labor rather than materials local dollars
- Historic buildings were designed to take advantage of natural light, ventilation, and performance of building materials

Change Your Home's Energy Consumption Without Changing Its Character!

1. Insulate your home
2. Weather strip doors & windows
3. Install draft stoppers (fireplace, openings to the basement)
4. Have an energy audit done to your home
5. Evaluate your heater/boiler
6. Consider tankless hot water heaters
7. Replace bulbs with CFL's or LED's
8. Use energy star appliances/ low flow fixtures

Technical Assistance and Low-Interest Financing

HERITAGE HOME PROGRAM

- Resources for maintenance, remodeling, & restoration projects
- Impartial advice
- Color Consultations
- Review of Construction Bids
- Contractor Assistance
- Free TA over the phone and email
- Site Visits
- Low-interest equity-based financing for qualified homes and projects.

Loan Information

- Key Bank
  - 2% fixed interest
  - Minimum- $3K
  - Maximum- $150K
  - 5-10 year term
  - No Income Restrictions

- Third Federal Savings and Loan
  - 2.99% fixed interest
    - Minimum- $5,200
    - Maximum- $150K
    - 15 year term
    - Income Limit of $54,000.00
    - Tax payment plans considered

- No prepayment penalty
- Will Work DIY
- Interest from loan is tax deductible
- Homeowner meets bank lending guidelines
- Loan is based on equity established by after-rehab appraisal
- Minimum fees: Loan origination, program fees (max 2% of total loan), and escrow fees

Application Process

- ✓ Site Visit
- ✓ Obtain written estimates for approved projects
- ✓ Submit application with written estimates to HHP
- ✓ Start banking application

Specialty Loan Procedures

- ✓ After-Rehab Appraisal
- ✓ Escrow Agent
- ✓ Escrow Contracts

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