The Twenty Most Cost-Effective Home Improvements

Second Edition | Update

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THE TWENTY MOST COST-EFFECTIVE HOME IMPROVEMENTS
SECOND EDITION UPDATE

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UNIT 1

INTRODUCTION

I. INTRODUCTION TO COST-EFFECTIVE HOME IMPROVEMENTS

A. Home improvement investments

1. Homeowners often ask, "What home improvement projects are cost effective and provide the best return on investment?"

2. As real estate and home improvement/investment professionals, how should we address this question? Let's start by taking a look at definitions of "return" and "return on investment."

a) Webster Dictionary: *Return*—The value of or profit from a venture. (There are many definitions and sub-definitions available through the dictionaries.)

b) Wikipedia: *Return on investment (ROI)* is the benefit to the investor resulting from an investment of some resource. A high ROI means the investment gains compare favorably to investment cost. As a performance measure, ROI is used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. In purely economic terms, it is one way of considering profits in relation to capital invested.

3. Does this define ROI from a real estate perspective?

a) Often times, the ROI and transactional motivation for real estate activity is generated by factors that go beyond the above definitions. These may include the following questions:

(1) How long will it take to sell the home? (Time is money.)

(2) Is the homeowner motivated to sell, and then purchase another home? (Why? Reasons may go beyond the financial ROI.)

(3) Is the extra investment and work worth the "headache" of taking on a project?

(4) Is the homeowner capable of making the right choices—color, style, material, quality, etc.—that will have a positive ROI outcome based on the market's perspective? (Do they need help?)

(5) Is this the right time in history to upgrade and/or sell? (Recession, changing financial and market conditions, personal and family issues, etc.)

(6) How long is the homeowner going to live in the home?

b) As you can see from the above variables, ROI from a residential housing perspective is subject to many variables and conditions. We may be able to help the customer overcome or influence these variables; however, sometimes we have no control or influence.

c) As professionals, we can gain considerable influence and credibility by guiding the customer through the maze of options. And, if we do it right, we will exceed the customer's expectations and reap the financial rewards that we deserve.

B. Improvement vs. maintenance

1. Improvements, when done correctly, enhance the property.

2. Maintenance involves keeping house components, such as appliances, roofs, windows, and mechanical systems, operating properly.

3. Both require making good choices. The following are good decision-making examples:

a) When replacing a deck or landing, consider accessibility issues. If possible, reduce the number of steps or levels when remodeling. Benefits include increased safety, that simple designs often cost less to build, and that it may expand the audience of potential buyers to include seniors or those with disabilities.

b) If the home has a worn out furnace or water heater, consider upgrading to a high efficiency unit. This will reduce your utility bills and provide a value/talking point when selling the property.

c) If you need to replace a faucet, consider enhanced designs. For a small amount of money, you can enhance the beauty of a kitchen or bath while also addressing a maintenance issue.

d) Is there a "very rustic" fire pit in the back yard? Look for landscaping brick sales. For a very small amount of money and labor, you can build a beautiful fire pit.

e) If replacing an old exterior hinged patio door, consider replacing with a sliding door. This may improve accessibility and placement of furniture. Select the right hardware and it will also enhance the beauty and quality image of the home.

4. Many property owners do not have the financial resources to complete large scale home improvement projects. However, they can gradually maintain or enhance their property values by making good improvement and maintenance decisions.

5. As you review the contents of this course, please keep in mind that details within the provided examples, codes, cost estimates, and financial data are constantly evolving. Always refer to your local just-in-time sources for materials, labor, financing, codes, and related expenses.

UNIT 2

OUT OF DATE VS. DEFERRED MAINTENANCE

I. OUT-OF-DATE FEATURES

A. Out-of-date definitions

1. Homeowners may elect to make improvements to keep their home up to date, or they may delay investing into their property. If a home is "out of date," the value usually goes down. Typically, some investment and work will be required to bring the value back to market levels.

2. When defining "out of date," we need to get specific details by examining the market.

3. What's out there?

a) Define "neighborhood" then assess the property.

(1) Appearance

(2) Quality

(3) Lot size and accessibility

(4) Safety issues

(5) Others

b) Environmental and geographic factors

c) What home features are included in competitive homes on the market or recent homes sold? (Expand your research beyond the immediate neighborhood.)

4. Identify the problems.

a) If a property is out of date, it may be acceptable if the neighboring and competitive properties are in similar condition. If other similar properties are up to date, updating is a marketing requirement.

b) Examples of out-of-date features include the following:

(1) Pink tile in an outdated bathroom

(2) Green refrigerator and sink in the kitchen

(3) Very small kitchen

(4) Very small closets

(5) Small one-car garage

II. DEFERRED MAINTENANCE

A. Deferred maintenance issues

1. A property with deferred maintenance issues

a) If these issues are not addressed, the owner will need to significantly discount the property. This may create a net loss for the seller.

b) Also, this will limit the quantity of possible buyers, which may include buyers looking to "flip" the property for a profit.

c) Examples of deferred maintenance issues include the following:

(1) 30-year-old furnace, water heater, etc.

(2) 30-year-old shingles with visible and probable hidden damage

(3) Asbestos covered pipes or tiles, or lead based paint on the property

(4) Decaying wood and structural issues

(5) Unclean property with garbage, debris, extra vehicles, etc.

(6) Excessive odor or damage from pets

2. Time for a candid conversation with the owner.

a) Does the owner accept the reality of his property?

b) Is he willing and able to take the steps required to make the property salable?

c) Is it worth your time and energy to take on this customer?

UNIT 3

DISCOUNTING SALES PRICE VS. MAKING IMPROVEMENTS

I. THE REAL ESTATE CYCLE

A. When to make improvements

1. In some situations, if key improvements are not made, the house will not sell until the price is significantly reduced. This leads to the question: "What needs to be done to the property to make it salable?"

2. Obviously, the answer to this question will be different for every property and will vary based on the type of buyer.

a) Discounting sales price for ease of sale, timing, etc.

(1) Consider a gradual price reduction strategy with timed interval for price reductions. For example, start at $200,000. If the property does not sell, reduce the sale price by "X%" at regular time intervals that are acceptable to the seller. Potential buyers, typically using the internet, will watch the property and "pounce" when the time is right for them.

b) Investors, or "flippers," are always looking for profitable opportunities.

(1) What margins are investors looking for?

(a) The following options will vary based on markets and business models:

i) Approximately 10–20%: ls 20–22% gross and 8% net

ii) Flat rate: $10,000–$20,000 per house

iii) What the market will bear: as much as you can get and still get the job

(2) How and when do investors search the market for opportunities?

(a) When looking to purchase a property, there are three primary skill sets:

i) Real estate

ii) Finance

iii) Property/building inspection

(b) Note: If you do not possess all of the knowledge, skills, and abilities related to the above, you have the following choices to make:

i) Develop formal or informal partnerships with the right people.

ii) Develop an education plan to "close the gaps."

iii) Gamble and do the best you can.

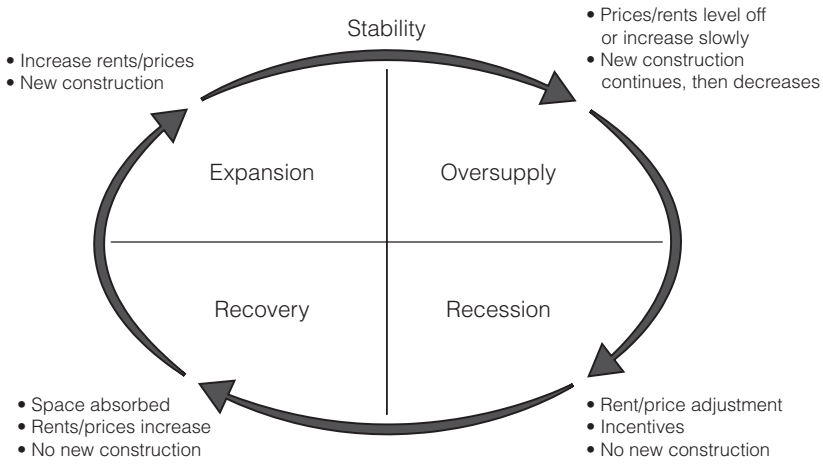
iv) Hire people with the right skills.

v) "Take very small steps"—Be very cautious/conservative until you feel confident taking on bigger projects.

vi) Join professional organizations to expand your knowledge and professional network.

B. The Real Estate Cycle explained

Figure 3.1
The Real Estate Cycle



1. Use data when making decisions.

a) Local market-based data is available through county records (often available online).

b) Residential sale search

(1) Sale data range

(2) Sale amount range

(3) Style of structure

(4) Number of bedrooms/bathrooms

(5) Total living area

(6) Year built

(7) Subdivision/development

(8) City/township

c) Advanced search capabilities (usually a monthly or annual fee of $20/$200)

(1) Structure photos

(2) Building diagrams

(3) Parcel identification

(4) Deed holder names

(5) Detailed building characteristics

(6) Ability to print property record card

(7) Commercial sale searches

d) Appraisal topics

(1) Appraisal process

(2) Appraisal staff

(3) Market values and appeals

(4) Homestead market value exclusions

(5) Homestead process

(6) Property taxes

(7) Deferred tax programs

(8) Contacts

e) Appraisal statistics

(1) Electronic availability varies per county/state

(2) Common links

(3) Who/how to contact and research

f) Subscription services

g) Property records

h) Any city/township

(1) Building permits

(2) Design review committee and process

(3) Zoning maps

(4) Land use permits

(5) Meetings and public hearings

(6) Fee schedule

2. Know the language.

a) Teardowns

b) Urban redevelopment

c) Infilling

d) Unsellable inventory

e) Condemned

f) Short sale

g) Foreclosure

3. Recognize the opportunity.

a) Urban opportunities: homes, condos, lofts, high-rises, etc.

(1) Easy access to employment opportunities, theatres, shopping, night life, multicultural events, restaurants, museums, sporting events, public transportation, etc.

(2) Neighborhoods that are safe and focus on quality of life

b) Waterfront opportunities: Water is a draw for many people; however, there is not enough water for everyone to enjoy 24/7.

(1) Lake frontage or view

(2) River frontage or view

c) Environmental opportunities

(1) Unique location or view: mountain, hilltop, valleys, wetlands, etc.

(2) Wildlife

(3) Access to outdoor sports/activities: public or private land, hiking, hunting, fishing, snowmobile, ATV, etc.

4. Understand the process/mathematics of making a profit when flipping houses.

Figure 3.2
The Mathematics of Renovation

After renovation value	After renovation value	After renovation value
– Construction costs	– Construction costs	– Acquisition costs
– Development costs	– Development costs	– Development costs
– Acquisition costs	– Profit	– Profit
Profit	Acquisition price	Construction budget

C. Common home improvements

1. Examples of what may be required to make the property salable

a) The 10 most common maintenance issues include the following:

(10) Undersized electrical panel

(9) Unvented plumbing drains

(8) Dirty fireplace flue

(7) No gutters/clogged gutters

(6) Negative grade

(5) Old shingles

(4) No bath exhaust fan

(3) Poor attic venting

(2) Moisture

(1) Homeowner repairs

2. Minor repairs

a) Paint—Fresh paint goes a long way in making the home feel clean and fresh. Automakers spend thousands of dollars on research each year to determine what colors to make new car models. Look at auto brochures to see what might be the best color to paint the front door.

b) Carpet/vinyl—Old worn carpeting in a house screams, "Help me!" Install a soft carpet and a high quality pad, and shoppers will feel the luxury under their feet.

c) Caulking—This is a simple, often neglected, and inexpensive necessity in every home. Use a quality polyurethane caulk and show the buyers that you care about the home.

d) Cleaning—Just like paint, a clean house makes it desirable to be in. Pay attention to the corners of the tubs and floors.

3. Water control

a) Landscaping/grading—Make sure that the landscaping around the house doesn't act like a water dam. Grading should always slope away from the house.

b) Gutters —These are tremendously helpful in controlling water around the house. But, if there are small shrubs growing from the gutters, it can be worse than not having them at all.

c) Drainage systems—Sump pumps have stopped a lot of basements from flooding; but, if the pump fails or the power goes out, basements can get wet. Back-up sump pumps are inexpensive and can save your buyers thousands in repair costs.

4. Remodeling vs. replacement

a) Do I remodel the house or just replace what's broken?

b) Over the years, the ROI for remodeling projects has been decreasing, and replacements provide for more return.

UNIT 4

TOP 10 EXTERIOR HOME IMPROVEMENTS

I. EXTERIOR HOME IMPROVEMENTS

A. Top 10 exterior improvements

10. **Window replacement (midrange vinyl)—77.5% ROI, cost of $10,316**
    - Before work value
    - After work value
    - Variables

9. **Siding replacement (foam-backed vinyl)—77.6% ROI, cost of $15,184**
    - Before work value
    - After work value
    - Variables

8. **Window replacement (wood)—78.8% ROI, cost of $11,341**
    - Before work value
    - After work value
    - Variables

7. **Deck addition (wood)—80.5% ROI, cost of $10,048**
    - Before work value
    - After work value
    - Variables

6. **Siding replacement (vinyl)—80.7% ROI, cost of $12,013**
    - Before work value
    - After work value
    - Variables

5. **Garage door replacement (upscale overhead door)—82.5% ROI, cost of $2,944**
    - Before work value
    - After work value
    - Variables

4. **Siding replacement (fiber cement)—84.3% ROI, cost of $14,014**
    - Before work value
    - After work value
    - Variables

3. **Garage door replacement (midrange overhead door)—88.4% ROI, cost of $1,595**
   - Before work value
   - After work value
   - Variables

2. **Manufactured stone veneer—92.2% ROI, cost of $7,150**
   - Before work value
   - After work value
   - Variables

1. **Entry door replacement (steel)—101.8% ROI, cost of $1,230**
   - Before work value
   - After work value
   - Variables

B. Sample exterior projects

1. Deck addition

a) 68% ROI, cost of $15,912

(1) Add a 16-by-20-foot deck using pressure-treated joists supported by 4-by-4 posts anchored to concrete piers. Install composite deck material in a simple linear pattern. Include a built-in bench and planter of the same decking material. Include stairs, assuming three steps to grade. Provide a complete railing using a matching system made of the same composite as the decking material.

b) Composite decking: $4 linear foot

c) Composite railing: $50 linear foot

2. Roof replacement

a) 71.6% ROI, cost of $19,528

(1) Remove existing roofing to bare wood sheathing, and dispose of properly. Install 30 squares of 235-pound fiberglass asphalt shingles (minimum 25-year warranty) with new felt underlayment, galvanized drip edge, and mill-finish aluminum flashing. Assume a 5-square hip roof, custom flashing at two average-sized skylights, and custom cap treatment at vented ridge.

b) Architectural shingles: $100 per square (100 sq. ft.)

c) Synthetic underlayment: $20 per square

UNIT 5

TOP 5 INTERIOR HOME IMPROVEMENTS

I. INTERIOR HOME IMPROVEMENTS

A. Top 5 interior improvements

5. Major kitchen remodel—67.8% ROI, cost of $56,768

- Before work value
- After work value
- Variables

4. Bathroom remodel—70% ROI, cost of $16,724

- Before work value
- After work value
- Variables

3. Basement remodel—72.8% ROI, cost of $65,442

- Before work value
- After work value
- Variables

2. Attic bedroom—77.2% ROI, cost of $51,696

- Before work value
- After work value
- Variables

1. Minor Kitchen Remodel—79.3% ROI, cost of $19,226

- Before work value
- After work value
- Variables

B. Sample interior projects

1. Kitchen remodel

a) 67.8% ROI, cost of $56,768

(1) Update an outdated 200-square-foot kitchen with a functional layout of 30 linear feet of semi-custom wood cabinets, including a 3-by-5-foot island, laminate countertops, and standard double-tub stainless-steel sink with standard single-lever faucet. Include energy-efficient wall oven, cooktop, ventilation system, built-in microwave, dishwasher, garbage disposal, and custom lighting. Add new resilient flooring. Finish with painted walls, trim, and ceiling.

b) Semi-custom cabinets: $15,000

c) Laminate HD countertops: $40 per sq. ft.

d) Appliances: $2,500

e) Faucet with pull out sprayer: $150

2. Bathroom remodel

a) 70% ROI, cost of $16,724

(1) Update an existing 5-by-7-foot bathroom. Replace all fixtures to include 30-by-60-inch porcelain-on-steel tub with 4-by-4-inch ceramic tile surround, new single-lever temperature and pressure-balanced shower control, standard white toile, solid-surface vanity counter with integral sink, recessed medicine cabinet with light, ceramic tile floor, and vinyl wallpaper.

b) Ceramic tile: $5 per sq. ft.

c) Tub/shower: $1,500

d) Toilet: $300

UNIT 6

TOP 5 ENERGY CONSERVATION IMPROVEMENTS

I. ENERGY-SAVING IMPROVEMENTS

A. Top 5 energy-saving improvements

5. **Window replacement (wood)—71.9% ROI, Cost of $17,422**
   - Before work value
   - After work value
   - Variables

4. **Entry door replacement (fiberglass)—72% ROI, cost of $2,926**
   - Before work value
   - After work value
   - Variables

3. **Window replacement (upscale vinyl)—74.9% ROI, cost of $13,837**
   - Before work value
   - After work value
   - Variables

2. **Window replacement (midrange vinyl)—77.5% ROI, cost of $10,316**
   - Before work value
   - After work value
   - Variables

1. **Siding replacement (foam-backed vinyl)—77.6% ROI, cost of $15,184**
   - Before work value
   - After work value
   - Variables

II. CONCLUSIONS

A. Comparing home improvements

Figure 6.1
Comparing Home Improvements

Top 20 National Ranking	Improvement Project	Top 10 Exterior Improvements & Avg. Cost	Top 5 Interior Improvements & Avg. Cost	Top 5 Energy Improvements Avg. Cost	Percent of ROI
20	Major kitchen remodel		Rank—5 $56,768		67.8%
19	Deck additions (composite)—$15,912				68%
18	Bathroom remodel		Rank—4 $16,724		70%
17	Roof replacement—$19,528				71.6%
16	Window unit replacement (wood)			Rank—5 $17,422	71.9%
15	Entry door replacement (fiberglass)			Rank—4 $2,926	72%
14	Basement remodel		Rank—3 $17,800		72.8%
13	Window replacement (upscale vinyl)			Rank—3 $13,837	74.9%
12	Attic bedroom		Rank—2 $51,696		77.2%
11	Window replacement (mid-range vinyl)	Rank—10 $10,316		Rank—2 $10,316	77.5%
10	Siding replacement (Foam backed vinyl)	Rank—9 $15,184		Rank—1 $15,184	77.6%
9	Window sash replacement (wood)	Rank—8 $11,341			78.8%
8	Minor kitchen remodel		Rank—1 $19,226		79.3%
7	Deck addition (wood)	Rank—7 $10,048			80.5%
6	Siding replacement (vinyl)	Rank—6 $12,013			80.7%
5	Garage door (Upscale overhead door)	Rank—5 $2,944			82.5%
4	Siding replacement (Fiber cement)	Rank—4 $14,014			84.3%
3	Garage door replacement (Midrange overhead door)	Rank—3 $1,595			88.4%
2	Manufactured stone veneer	Rank—2 $7,150			92.2%
1	Entry door replacement (steel)	Rank—1 $1,230			101.8%

Source: "2015 Cost vs. Value Report," national averages, updated 2015, www.costvsvalue.com.

B. Conclusions

1. What did we learn from analyzing each segment and comparing it with all the data in the chart?

a) Some items are a bit murky with this analysis. For example, replacing windows and doors can enhance the exterior, interior, and save on energy.

b) The homeowner needs to look "beyond" the financials and examine all of the ROI impacts and motivations that we discussed in the introduction.

c) There are many variables and choices; therefore, we need to be cautious when guiding customer decisions.

d) Only one of the above home improvements delivered over 100% ROI. However, as we discussed in Unit III, discounting the sales price instead of making the improvements is not always the right answer. Some buyers do not want to take on a home improvement project.

e) Other key learnings

UNIT 7

ECONOMICS AND ENVIRONMENTAL FACTORS

I. ENVIRONMENTAL FACTORS

A. Environmental decisions

1. **Let's take a deeper look at several key environmental and energy decisions that often need to be addressed when prioritizing home improvement projects and costs.**

    a) This is the area where the big surprises can pop up. Do your research and understand the environmental issues or other potential issues that may arise. Not planning for these can cost you thousands of dollars in unexpected costs.

B. Radon

1. **http://www.epa.gov/radon (Linear no threshold)**

2. **http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2477686 (Hormesis)**

3. **Sources—Breakdown of uranium in soil, rock, and water**

4. **Testing**

    a) Alpha track

    b) Activated charcoal

    c) Liquid scintillation

    d) Electric ion

    e) Electronic

C. Reduction vs. mitigation—2012 IRC

1. **Many states are requiring radon systems be installed in all new construction and when adding a room onto the house. Radon mitigation is impossible. All we can do is reduce the level of radon in our homes.**

D. Lead paint

1. **EPA requirements—2010 required training for RRP**

2. **Sources—pre-1978 homes**

3. **Testing—Lead check, D lead**

4. **RRP vs. abatement**

   a) The RRP program is not lead abatement, but instead it is lead containment. Make sure the lead that you disturb is safely contained and removed from the home.

   b) Anyone doing work on a pre-1978 home for profit needs to be RRP certified. This includes landlords doing their own repair work on their own properties, because rent is considered compensation.

5. **When doing work for compensation on a pre-1978 home (rent and house flipping are forms of compensation), the Renovate Right brochure (Appendix 2) must be provided to the owners. The owner's signature is required, which acknowledges the receiving and reading of this document.**

6. **The contractor or person doing the work for compensation is required to complete the EPA's Renovate Right Painting Program. This involves the following:**

   a) Successful completion of an 8-hour course

   b) Certifying the firm

   c) Assigning a Certified Renovator to each job

   d) The Certified Renovator is responsible for training and documentation of non-certified

7. **The Certified Renovator and firm are also responsible for documenting and retaining documentation for the job.**

8. **For additional information, please visit www.epa.com or contact us to sign up for a RRP course.**

9. **The fine for non-compliance is $37,500 per incident.**

E. Mold

1. Sources—Air, moisture, and food

2. Testing—Spore count vs. identification

a) There are only two types of tests for mold.

(1) Conduct a mold spore count in the house and compare it to a mold spore count outside. If the interior number is larger than the exterior number, a mold colony could be growing, or the home may have poor ventilation.

(2) Swab growing mold and test it to discover what type of mold it is.

3. Clean up—Vinegar or borax, not bleach

a) The best prevention of mold is a clean house. You don't have to use harsh chemicals like bleach. Mold is very easy to kill. Products like vinegar and borax detergent do a great job of killing the mold.

4. Prevention—Humidity control and cleaning

a) Most molds that grow inside homes need 40% humidity and a 40°F+ temperature. If the house is dry, the mold won't grow.

II. ECONOMICS OF ENERGY SAVING

A. Energy saving upgrades

1. Heating and cooling systems

a) System type—Forced air, hot water, or electric

b) Fuel type—Gas, electric, solar, or geothermal

B. Payback vs. cost

1. Light bulb savings

2. **Annual electricity savings:** $\frac{(\text{daily hours} \times 365 \text{ days/year}) \times \text{watts saved}}{1{,}000} \times \frac{\text{cost}}{\text{kWh}}$

3. $8 \text{ hours} \times 365 \times \frac{40 \text{ watts saved}}{1{,}000} \times 0.08 \text{ per kw} = \$9.34 \text{ per year}$

4. **Furnace savings**

C. Tax incentives

1. **Tax incentives expire December 2016.**

   a) Geothermal heat pump

   b) Small wind turbines

   c) Solar energy systems

   d) Fuel cells

D. Domestic hot water

1. **System type—Tank, tankless, or indirect**

2. **Fuel type—Gas, electric, solar, or geothermal**

3. **Efficiency—NAECA 2015 (National Appliance Energy Conservation Act)**

   a) The NAECA went into effect on April 16, 2015, and requires manufacturers to make water heaters more efficient, resulting in higher EF (energy factor) ratings.

E. Five low-cost, energy-saving home improvements

1. **Upgrade appliances**

   a) Provides for better performance and higher efficiency

2. **Add ceiling fans**

    a) Provides for more even room temperatures

3. **Lighting**

    a) LED bulbs and, soon, OLED

4. **Sealing air leaks**

    a) Caulking and foaming

5. **Insulation**

    a) Fiberglass, cellulose, open-cell foam, and closed-cell foam

UNIT 8

FINANCING

I. THE ECONOMICS OF HOME IMPROVEMENTS

A. Financing concepts

1. Financing

a) FHA 203k (HUD document 4240.4 Rev-2)

(1) Streamline vs. full

(2) Fee heavy

(3) Minimum improvement of $5,000

b) FHA

(1) Must meet minimum property standards (HUD document 4150.2)

c) Conventional

d) Home equity line of credit

e) 2nd mortgage

2. Rental

a) House value vs. rental value

3. Long term investment

a) Cash out or reverse mortgage

b) Savings rate vs. mortgage rate

4. Purchase price + repairs + profit = selling price

5. Variables

a) Location

b) Finished square feet

c) Lot size

d) Bedrooms

e) Other

B. Definitions

1. **Job cost: The price that a contractor charges a consumer for a remodeling project**

2. **Return on investment: The percentage of the job cost, as it relates to value contribution (affect on selling price) of a home improvement project**

C. Conclusions

1. **This data involves home improvement projects completed by licensed professionals.**

2. **All projects are completed with permits and are code-compliant.**

3. **The positive or negative ROI can shift if the homeowner contributes labor, financing, etc.**

Rank	Item	Job Cost	Value	ROI	Profit/Loss
14	Basement remodel	$65,442	$47,642	72.8%	–$17,800
20	Major kitchen remodel	$56,768	$38,489	67.8%	–$18,279
12	Attic bedroom	$51,696	$39,909	77.2%	–$11,787
17	Roof replacement	$19,528	$13,982	71.6%	–$5,546
8	Minor kitchen remodel	$19,226	$15,246	79.3%	–$3,980
16	Window replacement (wood)	$17,422	$12,526	71.9%	–$4,896
18	Bathroom remodel	$16,724	$11,707	70.0%	–$5,017
19	Deck addition (composite)	$15,912	$10,820	68.0%	–$5,092
10	Siding replacement (foam-backed vinyl)	$15,184	$11,783	77.6%	–$3,401
4	Siding replacement (fiber cement)	$14,014	$11,814	84.3%	–$2,200
13	Window replacement (upscale vinyl)	$13,837	$10,364	74.9%	–$3,473
6	Siding replacement (vinyl)	$12,013	$9,694	80.7%	–$2,319
9	Window replacement (wood)	$11,341	$8,937	78.8%	–$2,404
11	Window replacement (midrange vinyl)	$10,316	$7,995	77.5%	–$2,321
7	Deck addition (wood)	$10,048	$8,089	80.5%	–$1,959
2	Manufactured stone veneer	$7,150	$6,592	92.2%	–$558
5	Garage door replacement (upscale overhead door)	$2,944	$2,429	82.5%	–$515
15	Entry door replacement (fiberglass)	$2,926	$2,107	72.0%	–$819
3	Garage door replacement (midrange overhead door)	$1,595	$1,410	88.4%	–$185
1	Entry door replacement (steel)	$1,230	$1,252	101.8%	+$22

4. The following is sorted by hard cost—from most expensive to least expensive.

Rank	Item	Job Cost	Value	ROI	Profit/Loss
20	Major kitchen remodel	$56,768	$38,489	67.8%	–$18,279
14	Basement remodel	$65,442	$47,642	72.8%	–$17,800
12	Attic bedroom	$51,696	$39,909	77.2%	–$11,787
17	Roof replacement	$19,528	$13,982	71.6%	–$5,546
19	Deck addition (composite)	$15,912	$10,820	68.0%	–$5,092
18	Bathroom remodel	$16,724	$11,707	70.0%	–$5,017
16	Window replacement (wood)	$17,422	$12,526	71.9%	–$4,896
8	Minor kitchen remodel	$19,226	$15,246	79.3%	–$3,980
13	Window replacement (upscale vinyl)	$13,837	$10,364	74.9%	–$3,473
10	Siding replacement (foam-backed vinyl)	$15,184	$11,783	77.6%	–$3,401
9	Window replacement (wood)	$11,341	$8,937	78.8%	–$2,404
11	Window replacement (midrange vinyl)	$10,316	$7,995	77.5%	–$2,321
6	Siding replacement (vinyl)	$12,013	$9,694	80.7%	–$2,319
4	Siding replacement (fiber cement)	$14,014	$11,814	84.3%	–$2,200
7	Deck addition (wood)	$10,048	$8,089	80.5%	–$1,959
15	Entry door replacement (fiberglass)	$2,926	$2,107	72.0%	–$819
2	Manufactured stone veneer	$7,150	$6,592	92.2%	–$558
5	Garage door replacement (upscale overhead door)	$2,944	$2,429	82.5%	–$515
3	Garage door replacement (midrange overhead door)	$1,595	$1,410	88.4%	–$185
1	Entry door replacement (steel)	$1,230	$1,252	101.8%	+$22

5. What does this analysis mean to the customer?

6. How does this analysis help you coach your customer?

D. Summary

1. What's in it for you?

a) Provides you with a "third party" story/tool that will enhance your ability to coach the customer toward making good decisions

b) Expands your credibility with your customer

c) Satisfies your customers who may refer you to others

d) Gives you more business opportunities

e) Gives you the opportunity to expand your financials

f) Makes you feel good when you can help a potential customer become a very satisfied customer

APPENDIX

Appendix 1
Property Evaluation by a Home/Property Inspector

Recommended Property Inspection

This is a list of items on a home that need regular maintenance. Check off the items that need attention, and you will be left with a roadmap to improving the condition of the property.

Grading

Performing preventive maintenance will help prevent water from seeping into the home and will establish positive drainage away from the foundation.

- ❑ Improper backfill and settling around foundation and utility trenches
- ❑ Depressions in lawn or landscape beds
- ❑ Additional fill needed

Irrigation

Performing preventive maintenance will help protect your landscaping investment.

- ❑ Nonfunctional system
- ❑ Damaged sprinkler heads
- ❑ Damaged pipes

Garage Doors

Performing preventive maintenance will help insure the quiet, safe, and proper operation of your garage doors.

- ❑ Loose or missing screws and bolts on garage doors
- ❑ Improperly adjusted hardware causing noisy operation of garage doors
- ❑ Buildup on garage door tracks, rollers, hinge pulleys, and springs
- ❑ Sticky garage door opener
- ❑ Missing or broken light beams on garage doors

Weather Stripping

Performing preventive maintenance will help reduce the cost of utilities for your home.

- ❑ Damaged or missing weather stripping
- ❑ Loose weather stripping

Source: Home Maintainers™

Appendix 1 (Cont.)
Property Evaluation by a Home/Property Inspector

Caulking

Performing preventive maintenance will keep your home looking the way it was when you purchased it through caulking items that may have contracted and/or expanded from temperature variations inside and outside the home.

- ❑ Missing caulking around interior and exterior edges of windows
- ❑ Missing caulking around interior and exterior door moldings
- ❑ Missing caulking around all outside faucets with silicone caulk, where they enter the exterior wall
- ❑ Missing caulking around tubs, showers, sinks, and countertops

Fireplaces

Performing preventive maintenance will help protect against water leakage.

- ❑ Loose flashing, cracked mortar joints, or a loose chimney cap
- ❑ Dirty chimney flue and/or damaged damper
- ❑ Damaged hearth base and firebox

Decks

Performing preventive maintenance will increase the life and durability of, and enhance the beauty of, your deck.

- ❑ Deck has structural damage
- ❑ Deteriorated finish on decks, railings, and stairs

Concrete

Performing preventive maintenance will help insure the longevity of the surface.

- ❑ Cracks in exterior concrete slabs, sidewalks, patios, and driveways

Eaves and Soffits

Performing preventive maintenance will help prevent uninvited guests from damaging the exterior.

- ❑ Evidence of uninvited nests of insects

Gutters

Performing preventive maintenance will prevent debris and leaf buildup from clogging gutters, which can cause more costly repairs.

- ❑ Missing downspout extensions and splash blocks
- ❑ Leaking gutters or ice damage

Appendix 1 (Cont.)
Property Evaluation by a Home/Property Inspector

Roof

Performing preventive maintenance will help insure the integrity of the roof structure and will help prevent future loss from water leaks and structural damage.

- ❑ Damaged, loose, or missing shingles
- ❑ Damaged or missing roof flashing

Exterior Siding and Trim

Performing preventive maintenance will help keep moisture out of the wall cavity and preserve the longevity of the material.

- ❑ Damaged, loose, or missing siding/trim
- ❑ Peeling paint
- ❑ Rotting wood siding/trim

Appliances

Performing preventive maintenance will help ventilate your kitchen and allow your stove or cooktop to run more efficiently.

- ❑ Dirty filter in stove hood or down draft
- ❑ Clogged dryer vent
- ❑ Poor operating condition of appliances

Bathrooms

Performing preventive maintenance will help prevent water from working its way behind the tile or marble, causing additional damage.

- ❑ Dirty or nonexistent vent system
- ❑ Mildew infested grout/caulk on tub edges, shower base edges, and toilet bases

Fire Extinguisher

Performing preventive maintenance will help protect your home and family against fire, injury, and loss.

- ❑ Missing fire extinguisher

Cabinets

Performing preventive maintenance will preserve the beauty of your cabinets and doors, and help them function in the quiet manner in which they were designed.

- ❑ Loose cabinet knobs and screws
- ❑ Sticky cabinet hinges
- ❑ Unadjusted doors
- ❑ Gaps between cabinets and walls

Appendix 1 (Cont.)
Property Evaluation by a Home/Property Inspector

Doors

Performing preventive maintenance will preserve the beauty of your interior and exterior doors, and help them function in the quiet, secure manner in which they were designed.

- ❑ Loose and squeaky door hinges
- ❑ Loose and squeaky door hardware and deadbolt locks
- ❑ Damaged exterior door weather stripping and surface finishes
- ❑ Tight and squeaky sliding patio doors
- ❑ Damaged exterior wood thresholds

Windows

Performing preventive maintenance will help insure the proper operation of your windows.

- ❑ Damaged or broken windows
- ❑ Sticky windows and operating mechanisms

Interior Floors

Performing preventive maintenance will insure longer life of flooring.

- ❑ Stained grout and/or damaged tile
- ❑ Stained and/or damaged carpet, vinyl, or wood

Wall/Ceiling Repair

Performing preventive maintenance will enhance the beauty of your home.

- ❑ Minor cracks and nail pops
- ❑ Walls need repainting

Electrical

Performing preventive maintenance will help insure proper operation of your electrical system and will help prevent a hazardous situation from occurring.

- ❑ Missing or nonfunctional exterior, garage, kitchen, and bathroom GFI circuits
- ❑ Damaged circuit breakers and panel boards—possible fire hazards
- ❑ Missing interior and exterior light bulbs

Appendix 1 (Cont.)
Property Evaluation by a Home/Property Inspector

Smoke and CO Detectors

Performing preventive maintenance will help protect your family against carbon monoxide poisoning, fire, injury, and loss.

- ❑ Improper operation and/or missing detectors
- ❑ Missing batteries
- ❑ Dirty units

Heating and Air Conditioning

Performing preventive maintenance will provide better air movement, improve the efficiency of your systems, and create a cleaner and healthier environment.

- ❑ Dirty air handler and condenser coils
- ❑ Dirty air filters
- ❑ Nonfunctioning humidifiers and/or improper control settings
- ❑ Humidifier screen needs replacement
- ❑ Debris in firebox

Plumbing

Performing preventive maintenance will help address any problems in buildup and flow, and will eliminate a backup under normal circumstances.

- ❑ Clogged basement floor drain
- ❑ Noisy garbage disposal
- ❑ Dirty faucet aerators
- ❑ Faucets leak
- ❑ Damaged/old water heater
- ❑ Damaged outside faucets
- ❑ Odor in water
- ❑ Damaged or broken sump pump
- ❑ Leaking water supply lines and waste water sewer pipes
- ❑ Low hot water temperature
- ❑ Plugged or missing bathtub overflow

Appendix 2
EPA's Lead-Safe Certified Guide to Renovate Right

IT'S THE LAW!

Federal law requires contractors that disturb painted surfaces in homes, child care facilities and schools built before 1978 to be certified and follow specific work practices to prevent lead contamination. Always ask to see your contractor's certification.

Federal law requires that individuals receive certain information before renovating more than six square feet of painted surfaces in a room for interior projects or more than twenty square feet of painted surfaces for exterior projects or window replacement or demolition in housing, child care facilities and schools built before 1978.

- Homeowners and tenants: renovators must give you this pamphlet before starting work.
- Child care facilities, including preschools and kindergarten classrooms, and the families of children under six years of age that attend those facilities: renovators must provide a copy of this pamphlet to child care facilities and general renovation information to families whose children attend those facilities.

Appendix 2 (Cont.)
EPA's Lead-Safe Certified Guide to Renovate Right

WHO SHOULD READ THIS PAMPHLET?

This pamphlet is for you if you:

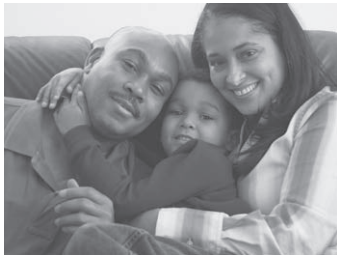
- Reside in a home built before 1978.
- Own or operate a child care facility, including preschools and kindergarten classrooms, built before 1978, or
- Have a child under six years of age who attends a child care facility built before 1978.

You will learn:

- Basic facts about lead and your health.
- How to choose a contractor, if you are a property owner.
- What tenants, and parents/guardians of a child in a child care facility or school should consider.
- How to prepare for the renovation or repair job.
- What to look for during the job and after the job is done.
- Where to get more information about lead.

This pamphlet is not for:

- **Abatement projects.** Abatement is a set of activities aimed specifically at eliminating lead or lead hazards. EPA has regulations for certification and training of abatement professionals. If your goal is to eliminate lead or lead hazards, contact the National Lead Information Center at **1-800-424-LEAD (5323)** for more information.
- **"Do-it-yourself"** projects. If you plan to do renovation work yourself, this document is a good start, but you will need more information to complete the work safely. Call the National Lead Information Center at **1-800-424-LEAD (5323)** and ask for more information on how to work safely in a home with lead-based paint.
- **Contractor education.** Contractors who want information about working safely with lead should contact the National Lead Information Center at **1-800-424-LEAD (5323)** for information about courses and resources on lead-safe work practices.



RENOVATING, REPAIRING, OR PAINTING?

- Is your home, your building, or the child care facility or school your children attend being renovated, repaired, or painted?
- Was your home, your building, or the child care facility or school where your children under six years of age attend built before 1978?

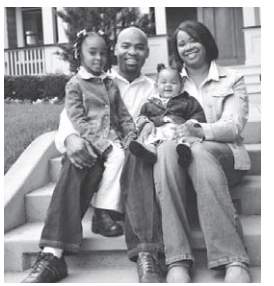
If the answer to these questions is YES, there are a few important things you need to know about lead-based paint.

This pamphlet provides basic facts about lead and information about lead safety when work is being done in your home, your building or the child care facility or school your children attend.

The Facts About Lead

- Lead can affect children's brains and developing nervous systems, causing reduced IQ, learning disabilities, and behavioral problems. Lead is also harmful to adults.
- Lead in dust is the most common way people are exposed to lead. People can also get lead in their bodies from lead in soil or paint chips. Lead dust is often invisible.
- Lead-based paint was used in more than 38 million homes until it was banned for residential use in 1978.
- Projects that disturb painted surfaces can create dust and endanger you and your family. Don't let this happen to you. Follow the practices described in this pamphlet to protect you and your family.

LEAD AND YOUR HEALTH



Lead is especially dangerous to children under six years of age.

Lead can affect children's brains and developing nervous systems, causing:

- Reduced IQ and learning disabilities.
- Behavior problems.

Even children who appear healthy can have dangerous levels of lead in their bodies.

Lead is also harmful to adults. In adults, low levels of lead can pose many dangers, including:

- High blood pressure and hypertension.
- Pregnant women exposed to lead can transfer lead to their fetuses. Lead gets into the body when it is swallowed or inhaled.
- People, especially children, can swallow lead dust as they eat, play, and do other normal hand-to-mouth activities.
- People may also breathe in lead dust or fumes if they disturb lead-based paint. People who sand, scrape, burn, brush, blast or otherwise disturb lead-based paint risk unsafe exposure to lead.

What should I do if I am concerned about my family's exposure to lead?

- A blood test is the only way to find out if you or a family member already has lead poisoning. Call your doctor or local health department to arrange for a blood test.
- Call your local health department for advice on reducing and eliminating exposures to lead inside and outside your home, child care facility or school.
- Always use lead-safe work practices when renovation or repair will disturb painted surfaces.

For more information about the health effects of exposure to lead, visit the EPA lead website at epa.gov/lead/pubs/leadinfo or call **1-800-424-LEAD (5323)**.

There are other things you can do to protect your family every day.

- Regularly clean floors, window sills, and other surfaces.
- Wash children's hands, bottles, pacifiers, and toys often.
- Make sure children eat a healthy, nutritious diet consistent with the USDA's dietary guidelines, that helps protect children from the effects of lead.
- Wipe off shoes before entering the house.

WHERE DOES THE LEAD COME FROM?

Dust is the main problem.

The most common way to get lead in the body is from dust. Lead dust comes from deteriorating lead-based paint and lead-contaminated soil that gets tracked into your home. This dust may accumulate to unsafe levels. Then, normal hand to-mouth activities, like playing and eating (especially in young children), move that dust from surfaces like floors and window sills into the body.

Home renovation creates dust.

Common renovation activities like sanding, cutting, and demolition can create hazardous lead dust and chips.

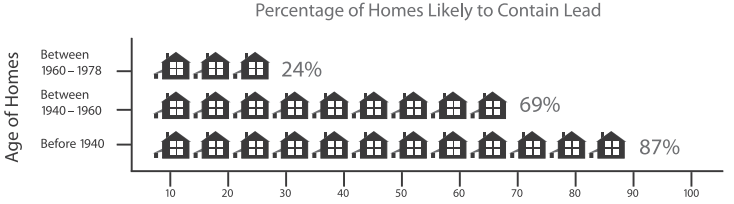
Proper work practices protect you from the dust.

The key to protecting yourself and your family during a renovation, repair or painting job is to use lead-safe work practices such as containing dust inside the work area, using dust-minimizing work methods, and conducting a careful cleanup, as described in this pamphlet.

Other sources of lead.

Remember, lead can also come from outside soil, your water, or household items (such as lead-glazed pottery and lead crystal). Contact the National Lead Information Center at **1-800-424-LEAD (5323)** for more information on these sources.

CHECKING YOUR HOME FOR LEAD-BASED PAINT



Older homes, child care facilities, and schools are more likely to contain lead-based paint.

Homes may be single-family homes or apartments. They may be private, government-assisted, or public housing. Schools are preschools and kindergarten classrooms. They may be urban, suburban, or rural.

You have the following options:

You may decide to assume your home, child care facility, or school contains lead. Especially in older homes and buildings, you may simply want to assume lead-based paint is present and follow the lead-safe work practices described in this brochure during the renovation, repair, or painting job.

You can hire a certified professional to check for lead-based paint.
These professionals are certified risk assessors or inspectors, and can determine if your home has lead or lead hazards.

- A certified inspector or risk assessor can conduct an inspection telling you whether your home, or a portion of your home, has lead-based paint and where it is located. This will tell you the areas in your home where lead-safe work practices are needed.
- A certified risk assessor can conduct a risk assessment telling you if your home currently has any lead hazards from lead in paint, dust, or soil. The risk assessor can also tell you what actions to take to address any hazards.
- For help finding a certified risk assessor or inspector, call the National Lead Information Center at **1-800-424-LEAD (5323)**.

You may also have a certified renovator test the surfaces or components being disturbed for lead by using a lead test kit or by taking paint chip samples and sending them to an EPA-recognized testing laboratory. Test kits must be EPA-recognized and are available at hardware stores. They include detailed instructions for their use.

FOR PROPERTY OWNERS

You have the ultimate responsibility for the safety of your family, tenants, or children in your care.

This means properly preparing for the renovation and keeping persons out of the work area (see p. 8). It also means ensuring the contractor uses lead-safe work practices.

Federal law requires that contractors performing renovation, repair and painting projects that disturb painted surfaces in homes, child care facilities, and schools built before 1978 be certified and follow specific work practices to prevent lead contamination.

Make sure your contractor is certified, and can explain clearly the details of the job and how the contractor will minimize lead hazards during the work.

- You can verify that a contractor is certified by checking EPA's website at epa.gov/getleadsafe or by calling the National Lead Information Center at **1-800-424-LEAD (5323)**. You can also ask to see a copy of the contractor's firm certification.
- Ask if the contractor is trained to perform lead-safe work practices and to see a copy of their training certificate.
- Ask them what lead-safe methods they will use to set up and perform the job in your home, child care facility or school.
- Ask for references from at least three recent jobs involving homes built before 1978, and speak to each personally.

Always make sure the contract is clear about how the work will be set up, performed, and cleaned.

- Share the results of any previous lead tests with the contractor.
- You should specify in the contract that they follow the work practices described on pages 9 and 10 of this brochure.
- The contract should specify which parts of your home are part of the work area and specify which lead-safe work practices will be used in those areas. Remember, your contractor should confine dust and debris to the work area and should minimize spreading that dust to other areas of the home.
- The contract should also specify that the contractor will clean the work area, verify that it was cleaned adequately, and re-clean it if necessary.

If you think a worker is not doing what he is supposed to do or is doing something that is unsafe, you should:

- Direct the contractor to comply with regulatory and contract requirements.
- Call your local health or building department, or
- Call EPA's hotline **1-800-424-LEAD (5323)**.

If your property receives housing assistance from HUD (or a state or local agency that uses HUD funds), you must follow the requirements of HUD's Lead-Safe Housing Rule and the ones described in this pamphlet.

FOR TENANTS AND FAMILIES OF CHILDREN UNDER SIX YEARS OF AGE IN CHILD CARE FACILITIES AND SCHOOLS

You play an important role ensuring the ultimate safety of your family.

This means properly preparing for the renovation and staying out of the work area (see p. 8).

Federal law requires that contractors performing renovation, repair and painting projects that disturb painted surfaces in homes built before 1978 and in child care facilities and schools built before 1978, that a child under six years of age visits regularly, to be certified and follow specific work practices to prevent lead contamination.

The law requires anyone hired to renovate, repair, or do painting preparation work on a property built before 1978 to follow the steps described on pages 9 and 10 unless the area where the work will be done contains no lead-based paint.

If you think a worker is not doing what he is supposed to do or is doing something that is unsafe, you should:

- Contact your landlord.
- Call your local health or building department, or
- Call EPA's hotline **1-800-424-LEAD (5323)**.

If you are concerned about lead hazards left behind after the job is over, you can check the work yourself (see page 10).

PREPARING FOR A RENOVATION

The work areas should not be accessible to occupants while the work occurs.

The rooms or areas where work is being done may need to be blocked off or sealed with plastic sheeting to contain any dust that is generated. Therefore, the contained area may not be available to you until the work in that room or area is complete, cleaned thoroughly, and the containment has been removed. Because you may not have access to some areas during the renovation, you should plan accordingly.

You may need:

- Alternative bedroom, bathroom, and kitchen arrangements if work is occurring in those areas of your home.
- A safe place for pets because they too can be poisoned by lead and can track lead dust into other areas of the home.
- A separate pathway for the contractor from the work area to the outside in order to bring materials in and out of the home. Ideally, it should not be through the same entrance that your family uses.
- A place to store your furniture. All furniture and belongings may have to be moved from the work area while the work is being done. Items that can't be moved, such as cabinets, should be wrapped in plastic.
- To turn off forced-air heating and air conditioning systems while the work is being done. This prevents dust from spreading through vents from the work area to the rest of your home. Consider how this may affect your living arrangements.

You may even want to move out of your home temporarily while all or part of the work is being done.

Child care facilities and schools may want to consider alternative accommodations for children and access to necessary facilities.

DURING THE WORK

Federal law requires contractors that are hired to perform renovation, repair and painting projects in homes, child care facilities, and schools built before 1978 that disturb painted surfaces to be certified and follow specific work practices to prevent lead contamination.

The work practices the contractor must follow include these three simple procedures, described below:

1. **Contain the work area.** The area must be contained so that dust and debris do not escape from that area. Warning signs must be put up and plastic or other impermeable material and tape must be used as appropriate to:
   - Cover the floors and any furniture that cannot be moved.
   - Seal off doors and heating and cooling system vents.
   - For exterior renovations, cover the ground and, in some instances, erect vertical containment or equivalent extra precautions in containing the work area.

These work practices will help prevent dust or debris from getting outside the work area.

2. **Avoid renovation methods that generate large amounts of lead-contaminated dust.** Some methods generate so much lead-contaminated dust that their use is prohibited. They are:
   - Open flame burning or torching.
   - Sanding, grinding, planing, needle gunning, or blasting with power tools and equipment not equipped with a shroud and HEPA vacuum attachment.
   - Using a heat gun at temperatures greater than 1100°F.

There is no way to eliminate dust, but some renovation methods make less dust than others. Contractors may choose to use various methods to minimize dust generation, including using water to mist areas before sanding or scraping; scoring paint before separating components; and prying and pulling apart components instead of breaking them.

3. **Clean up thoroughly.** The work area should be cleaned up daily to keep it as clean as possible. When all the work is done, the area must be cleaned up using special cleaning methods before taking down any plastic that isolates the work area from the rest of the home. The special cleaning methods should include:
   - Using a HEPA vacuum to clean up dust and debris on all surfaces, followed by
   - Wet wiping and wet mopping with plenty of rinse water.

When the final cleaning is done, look around. There should be no dust, paint chips, or debris in the work area. If you see any dust, paint chips, or debris, the area must be re-cleaned.

FOR PROPERTY OWNERS: AFTER THE WORK IS DONE

When all the work is finished, you will want to know if your home, child care facility, or school where children under six attend has been cleaned up properly.

EPA Requires Cleaning Verification.

In addition to using allowable work practices and working in a lead-safe manner, EPA's RRP rule requires contractors to follow a specific cleaning protocol. The protocol requires the contractor to use disposable cleaning cloths to wipe the floor and other surfaces of the work area and compare these cloths to an EPA-provided cleaning verification card to determine if the work area was adequately cleaned. EPA research has shown that following the use of lead-safe work practices with the cleaning verification protocol will effectively reduce lead-dust hazards.

Lead-Dust Testing.

EPA believes that if you use a certified and trained renovation contractor who follows the LRRP rule by using lead-safe work practices and the cleaning protocol after the job is finished, lead-dust hazards will be effectively reduced. If, however, you are interested in having lead-dust testing done at the completion of your job, outlined below is some helpful information.

What is a lead-dust test?

- Lead-dust tests are wipe samples sent to a laboratory for analysis. You will get a report specifying the levels of lead found after your specific job.

How and when should I ask my contractor about lead-dust testing?

- Contractors are not required by EPA to conduct lead-dust testing. However, if you want testing, EPA recommends testing be conducted by a lead professional. To locate a lead professional who will perform an evaluation near you, visit EPA's website at epa.gov/lead/pubs/locate or contact the National Lead Information Center at **1-800-424-LEAD (5323).**
- If you decide that you want lead-dust testing, it is a good idea to specify in your contract, before the start of the job, that a lead-dust test is to be done for your job and who will do the testing, as well as whether re-cleaning will be required based on the results of the test.
- You may do the testing yourself. If you choose to do the testing, some EPA-recognized lead laboratories will send you a kit that allows you to collect samples and send them back to the laboratory for analysis. Contact the National Lead Information Center for lists of EPA-recognized testing laboratories.

FOR ADDITIONAL INFORMATION

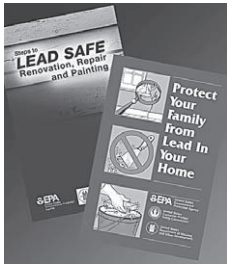
You may need additional information on how to protect yourself and your children while a job is going on in your home, your building, or child care facility.

The National Lead Information Center at **1-800-424-LEAD (5323)** or epa.gov/lead/nlic can tell you how to contact your state, local, and/or tribal programs or get general information about lead poisoning prevention.

- State and tribal lead poisoning prevention or environmental protection programs can provide information about lead regulations and potential sources of financial aid for reducing lead hazards. If your state or local government has requirements more stringent than those described in this pamphlet, you must follow those requirements.
- Local building code officials can tell you the regulations that apply to the renovation work that you are planning.
- State, county, and local health departments can provide information about local programs, including assistance for lead-poisoned children and advice on ways to get your home checked for lead.

The National Lead Information Center can also provide a variety of resource materials, including the following guides to lead-safe work practices. Many of these materials are also available at epa.gov/lead/pubs/brochure

- Steps to Lead Safe Renovation, Repair and Painting.
- Protect Your Family from Lead in Your Home
- Lead in Your Home: A Parent's Reference Guide



For the hearing impaired, call the Federal Information Relay Service at 1-800-877-8339 to access any of the phone numbers in this brochure.

EPA CONTACTS

EPA Regional Offices

EPA addresses residential lead hazards through several different regulations. EPA requires training and certification for conducting abatement and renovations, education about hazards associated with renovations, disclosure about known lead paint and lead hazards in housing, and sets lead-paint hazard standards.

Your Regional EPA Office can provide further information regarding lead safety and lead protection programs at epa.gov/lead.

Region 1
(Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont)
Regional Lead Contact
U.S. EPA Region 1
Suite 1100
One Congress Street
Boston, MA 02114-2023
(888) 372-7341

Region 2
(New Jersey, New York, Puerto Rico, Virgin Islands)
Regional Lead Contact
U.S. EPA Region 2
2890 Woodbridge Avenue
Building 205, Mail Stop 225
Edison, NJ 08837-3679
(732) 321-6671

Region 3
(Delaware, Maryland, Pennsylvania, Virginia, Washington, DC, West Virginia)
Regional Lead Contact
U.S. EPA Region 3
1650 Arch Street
Philadelphia, PA
19103-2029
(215) 814-5000

Region 4
(Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee)
Regional Lead Contact
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960
(404) 562-9900

Region 5
(Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)
Regional Lead Contact
U.S. EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3507
(312) 886-6003

Region 6
(Arkansas, Louisiana, New Mexico, Oklahoma, Texas)
Regional Lead Contact
U.S. EPA Region 6
1445 Ross Avenue,
12th Floor
Dallas, TX 75202-2733
(214) 665-7577

Region 7
(Iowa, Kansas, Missouri, Nebraska)
Regional Lead Contact
U.S. EPA Region 7
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7003

Region 8
(Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming)
Regional Lead Contact
U.S. EPA Region 8
1595 Wynkoop Street
Denver, CO 80202
(303) 312-6312

Region 9
(Arizona, California, Hawaii, Nevada)
Regional Lead Contact
U.S. Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 947-8021

Region 10
(Alaska, Idaho, Oregon, Washington)
Regional Lead Contact
U.S. EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101-1128
(206) 553-1200

OTHER FEDERAL AGENCIES

CPSC

The Consumer Product Safety Commission (CPSC) protects the public from the unreasonable risk of injury or death from 15,000 types of consumer products under the agency's jurisdiction. CPSC warns the public and private sectors to reduce exposure to lead and increase consumer awareness. Contact CPSC for further information regarding regulations and consumer product safety.

CPSC
4330 East West Highway
Bethesda, MD 20814
Hotline 1-(800) 638-2772
cpsc.gov

CDC Childhood Lead Poisoning Prevention Branch

The Centers for Disease Control and Prevention (CDC) assists state and local childhood lead poisoning prevention programs to provide a scientific basis for policy decisions, and to ensure that health issues are addressed in decisions about housing and the environment. Contact CDC Childhood Lead Poisoning Prevention Program for additional materials and links on the topic of lead.

CDC Childhood Lead Poisoning Prevention Branch
4770 Buford Highway, MS F-40
Atlanta, GA 30341
(770) 488-3300
cdc.gov/nceh/lead

HUD Office of Healthy Homes and Lead Hazard Control

The Department of Housing and Urban Development (HUD) provides funds to state and local governments to develop cost-effective ways to reduce lead-based paint hazards in America's privately-owned low-income housing. In addition, the office enforces the rule on disclosure of known lead paint and lead hazards in housing, and HUD's lead safety regulations in HUD-assisted housing, provides public outreach and technical assistance, and conducts technical studies to help protect children and their families from health and safety hazards in the home. Contact the HUD Office of Healthy Homes and Lead Hazard Control for information on lead regulations, outreach efforts, and lead hazard control research and outreach grant programs.

U.S. Department of Housing and Urban Development
Office of Healthy Homes and
Lead Hazard Control
451 Seventh Street, SW, Room 8236
Washington, DC 20410-3000
HUD's Lead Regulations Hotline
(202) 402-7698
hud.gov/offices/lead/

SAMPLE PRE-RENOVATION FORM

This sample form may be used by renovation firms to document compliance with the Federal pre-renovation education and renovation, repair, and painting regulations.

Occupant Confirmation

Pamphlet Receipt

❑ I have received a copy of the lead hazard information pamphlet informing me of the potential risk of the lead hazard exposure from renovation activity to be performed in my dwelling unit. I received this pamphlet before the work began.

_____
Printed Name of Owner-occupant

_____ _____
Signature of Owner-occupant Signature Date

Renovator's Self Certification Option (for tenant-occupied dwellings only)

Instructions to Renovator: If the lead hazard information pamphlet was delivered but a tenant signature was not obtainable, you may check the appropriate box below.

❑ **Declined** – I certify that I have made a good faith effort to deliver the lead hazard information pamphlet to the rental dwelling unit listed below at the date and time indicated and that the occupant declined to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the unit with the occupant.

❑ **Unavailable for signature** – I certify that I have made a good faith effort to deliver the lead hazard information pamphlet to the rental dwelling unit listed below and that the occupant was unavailable to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the unit by sliding it under the door or by (fill in how pamphlet was left).

_____ _____
Printed Name of Person Certifying Delivery Attempted Delivery Date

_____
Signature of Person Certifying Lead Pamphlet Delivery

_____

_____

_____
Unit Address

Note Regarding Mailing Option — As an alternative to delivery in person, you may mail the lead hazard information pamphlet to the owner and/or tenant. Pamphlet must be mailed at least seven days before renovation. Mailing must be documented by a certificate of mailing from the post office.