



Homeowners Guide to **Replacement Windows**



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Overwhelmed? Confused? Not sure where to begin? We understand. Buying new windows and hiring a crew to install them isn't something you do every day. Combine that with the cost of window replacement and it is little wonder many people feel unprepared for this home improvement project.

If you need help getting started on your window replacement project, you're in the right place. In this eBook, we'll provide a guide filled with useful, practical information you can use when selecting new windows and hiring a contractor so you can rest assured you'll be happy with the results.

Why replace your windows now?

Windows are a crucial element to the comfort, safety and appearance of your home. Not every issue with your windows demands a complete replacement. Some issues can be resolved with a simple repair. Others can't be fixed, and when one or more of these issues affect your windows, it is time to make that investment in your home.

It used to be that the life expectancy of residential windows was around 30-40 years, unless some external damage or other factor had occurred. Unfortunately, that rule of thumb no longer holds true, for several reasons.

New construction practices are driving a lot of the early window replacement. Construction budgets for new homes often skimp on window packages to put more money into other areas of the house, or just to lower the overall cost of the home. Brand new, the construction grade windows may look as good as all the other new houses on the street, but in just 5-10 years, many homeowners are beginning to experience problems.

Advances in window technology and energy efficiency also make window replacement more attractive for many homeowners. Energy savings, improved comfort and ease of maintenance prompt many homeowners to invest in higher quality windows to improve their lifestyle and save money in the long- run.



Specifically, the decision to replace all or some of your home's windows is usually prompted by the one or a combination of the following issues.

- High and/or rising utility costs air leakage or cold drafts
- Noise pollution allowed in by faulty windows, lack of insulation or poor installation
- Desire to replace outdated, inefficient storm windows
- Fire escape safety
- Improved home security
- Hard to clean and maintain windows, particularly those requiring ladders to reach
- Desire for tilt-in windows to make cleaning safe and easy
- Malfunctioning hardware making it difficult to lock, open or close windows
- Faded carpet or furniture caused by the sun due to insufficient window coating
- Rotting wood in window sill or frame
- Water damage around the windows, broken or chipped glass, chips or bubbles in paint
- Fogginess between the windows panes caused by a broken seal
- Windows that no longer match style of home and other upgrades
- Increase your home's value for resale
- Aesthetics – desire to change window style



Cost of window replacement

Although window replacement is a big expense, not replacing those windows can carry a hefty price tag as well. According to the U.S. Department of Energy, leaky and inefficient windows, skylights, and doors account for more than 25 percent of the average household's energy bills. In Iowa, where our weather tends to run to the extreme, that can add up quickly. In addition, if your windows deteriorate to the point of structural damage, the repair costs can run into the thousands.



The most important step in any home improvement project is to get an in-person estimate from a reliable local

contractor. The basic idea for getting an estimate is to get the best, most competitive price on the project for the money you are about to spend. A thorough estimate will also protect you from expensive add-ons once the project has begun.

Window and installation costs vary widely depending on the home, style, and window quality. The range is so wide that we hesitate to talk dollars and cents but we also understand that you need to start somewhere.

In general, the average price range for vinyl replacement windows is from \$200 to \$700. Modern homes tend to have an average of ten windows and most measure roughly 40"x 55" in size. This means that the average cost for such a project should fall into the \$2,000 to \$7,000 price range. Of course, that's a huge range and every house is different. These figures are intended only as a starting point to help you form realistic expectations when you start the estimate process.

How to Choose New Windows

Choosing the material for your windows is an important part of the window replacement process. The most popular window materials today are wood or vinyl. There are also variations including “wood clad” windows. Aluminum frame windows are also available, but are less popular since they aren’t as energy efficient as vinyl or wood.

Many homeowners still appreciate the appearance of wood windows but there are several downsides to wood frame windows. For one thing, wood is not intrinsically the most durable window frame material because of its susceptibility to rot. In addition, the cost of ownership of wood frame windows is quite high because homeowners must repaint every few years to extend the life of the window.

To combat the maintenance and rot issues, some window frame manufacturers wrap wood or composite wood in aluminum or vinyl, attached with glue. However, for these “wood clad” or “laminated” windows, this protection is only as good as the glue used to adhere the covering. Once the glue deteriorates and that seal is broken, moisture will seep under the cladding and wood rot will begin. A review of the warranties for this type of window will usually state that once glue or lamination fails, the warranty is void. Typically, they are void after 2-5 years depending on the manufacturer.

Vinyl windows now account for the majority of the windows installed today. Made out of the plastic material PVC, vinyl window frames were widely adopted in the 1970s to compete against costlier wood windows. Affordable, durable and low maintenance, vinyl windows are available at several price levels, colors and textures.



Vinyl Window Components Determine Price

There are several components to look at when selecting the actual vinyl windows to install in your home.

Quality of the vinyl:

There are three types of vinyl windows on the market today. While the end-product will look identical, the window produced varies greatly in quality and durability. Each variation has different amounts of virgin and recycled vinyl in its make-up. The vinyl grades include:



Virgin Vinyl – First generation vinyl windows include no recycled material. These are the strongest and most durable type of vinyl windows. Not surprisingly, these will also be more expensive than recycled windows.

Combination of Virgin Vinyl and Recycled Vinyl – This is sometimes referred to as 100% virgin vinyl because a portion of the product does actually include first generation, virgin vinyl - but the rest of the vinyl is made up of recycled materials. The ratio of virgin to recycled vinyl determines the quality. If the product has the VSI (Vinyl Siding Institute) stamp on it, it is likely to be of good quality even if it is not virgin vinyl.

Recycled (or Reground) Vinyl – The least expensive of all the vinyl options, this product creates a weaker window frame and is not as durable as either the true virgin vinyl window or the combination of first generation vinyl and recycled materials. It tends to become brittle and crack, warp and/or fade more quickly.

Window frame insulation: Most modern window frames have hollow cavities through which air can travel, leading to higher energy costs. Insulation options are available for these cavities to reduce the flow of air. The least expensive windows are sold with no insulation. Mid-range and higher cost windows are filled with quality insulating materials. You will pay more for insulated window frames but over time, investing in good insulation will reduce the cost of ownership considerably.

Single, double or triple panes: Residential windows come with single, double or triple paned glass options. Single pane windows, known for their poor insulation and high energy costs, were common in most houses built before the 1970s. Driven by the energy crisis of the 1970s, builders began installing double paned windows and this had a huge impact on the energy efficiency of windows. Recently, triple paned windows have also been added as an option.

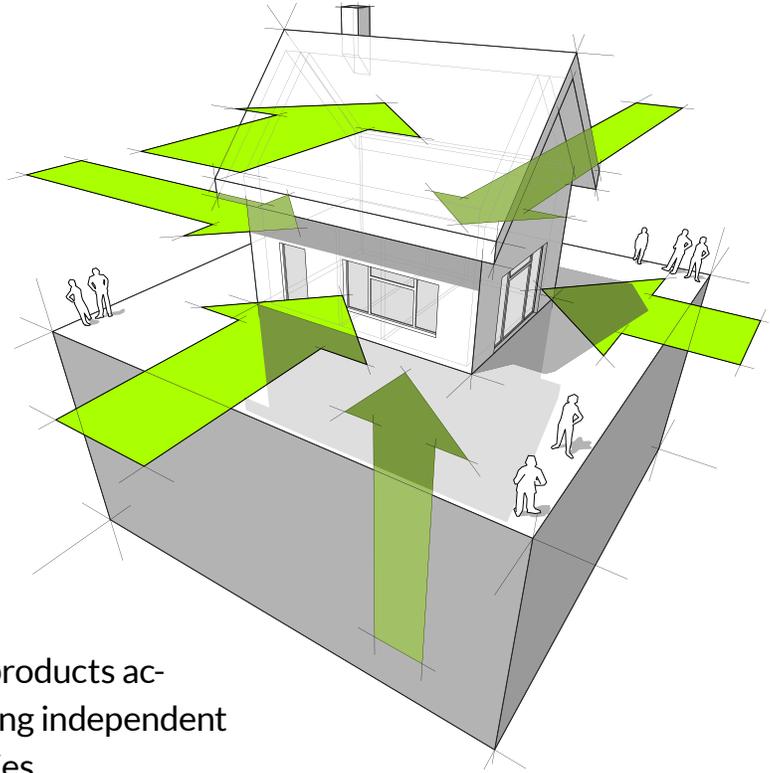


Window Gas: Window gas is several times denser than air. Manufacturers inject this gas between the panes of double or triple paned windows to slow the transfer of hot or cold air. This innovation in window construction adds significantly to the energy efficiency of your windows and the comfort of your home. Options usually include no gas, argon or krypton.

Window Coatings: Low-emissivity (low-E) coatings on glazing or glass control heat transfer through windows. Low-E coatings are available at various levels, from one layer to as many as twelve layers. Windows manufactured with low-e coatings typically cost about 10% to 15% more than uncoated windows, but they reduce energy loss by as much as 30% to 50%. In addition to reducing energy costs, low-E coatings will also help reduce sun damage to your upholstery and flooring.

Energy Star Labels and the NFRC

The standards developed by the National Fenestration Ratings Council (NFRC) are the benchmark of window quality. For example, in order to apply for the popular ENERGY STAR® label, window manufacturers must first test their products according to NFRC procedures, including independent testing at NFRC approved laboratories.



When looking at Energy Star labels, here are key terms you should know.

Air Leakage (AL) – By far the most important factor, this measure represents how much air will enter a room through the product measured in how many cubic feet of air can pass through the window per minute in a constant 25 mph wind divided by the total window area. The NFRC only certifies products that measure AL at 0.3 or less. You should note that since this is an optional measure, many window sellers choose not to include it on their labels. If you see a window label without the AL rating, you should ask the dealer for any information available about this important rating.

U-Factor – Measures the heat from inside the room that can escape through the window. U-factor ratings generally fall between 0.30 and 1.20. The lower the number, the better the product is at keeping heat in.

Visible Transmittance (VT) – This calculation measures how much natural light can come into a room. VT is expressed in numbers between 0 and 1. The higher the number means the more natural light you'll receive through the window.

Solar Heat Gain Coefficient (SHGC) – Measures the amount of outdoor heat that can enter a room. This factor is expressed in numbers between 0 and 1. The lower this number, the better the product will be at blocking unwanted heat gain, particularly important during the summer cooling season.

Upcoming Changes to window Energy Star Ratings for 2016

There are changes coming to the Energy Star label requirements. The current U-factor requirement for the Northern zone is 0.30. The Energy Star Label Version 6.0 (effective January 1, 2016) calls for a U-factor of 0.27, which some manufacturers think will require costly window and door redesigns. In order for manufacturers to earn a 2016 Energy Star label with the lower U-Factor, they will likely need to redesign and manufacture triple paned windows.



Obviously, triple paned windows will be considerably more expensive and heavier than double paned window approved under the current Energy Star Label. In addition, the jury is still out on whether the energy savings generated by the new standards will justify the higher cost of the triple paned windows. Another concern is that the added weight on the window may shorten the window's hardware lifespan and make cleaning tilt-in windows more difficult. Consumers will have the option of purchasing windows manufactured to the Energy Star standards in effect prior to 2016 if they choose.

Installation Methods

One of the first decisions you'll make when replacing your windows is the kind of installation you'll need, either "replacement" or "full frame" windows. Full frame windows are also known as "new construction" windows.

Replacement Windows – In this case, the contractor takes out the old window, adds a spacer to the frame of the window and then

puts a new, slightly smaller window into the existing frame. This construction method is less expensive because you can use the existing interior and exterior trim. However, if there are problems with the frame or surrounding area, replacement windows will not resolve the underlying issues.

Full Frame or New Construction Windows – The entire window and interior/exterior frame is removed down to the studs, until all that is left is the original, rough opening. In this case, you will need all new interior and exterior trim, extension jams, staining and painting. This method could add \$200-\$300 per window. However, if you suspect rot or damage in the area, spot water damage around the windows or have concerns about carpenter ants or other destructive insects, new construction windows may be the way to go.

One of the benefits of full frame windows is the opportunity to inspect for damage once the frame and trim has been removed. Be sure to establish in advance what steps your contractor will take if repairs are needed and how much those repairs will cost. For instance, if wood rot is found, will the bad wood be cut away and replaced? Is the crew qualified to make repairs? Are materials and labor included in the price or will you be charged extra? How much?



Switch Window Styles With Caution

If you want to switch out the style of window you currently have - for instance, replace casement windows with double-hung windows - be sure to ask your contractor if the new style will be in compliance with the building codes in your area. For instance, in many cities, there are residential egress requirements stating that a firefighter in full gear must be able to fit through the window to get in and out of the home. If changing to a different style of window would mean that your windows no longer meet code, when you try to sell your home later you may not be able to pass a real estate inspection until you upgrade the windows to meet egress code.



Stock Windows or Custom Manufactured?

Be sure to ask if your new windows will be “stock” windows or custom manufactured to your home’s specifications. New construction homebuilders usually install stock windows, manufactured in quantity, which is fine for the original house plans. However, the style and dimensions of stock windows change frequently so you may not be able to get the exact size of your original windows. If the dimensions are off by just a little, the cost to adjust your house to fit that stock window is far more than ordering windows that have been custom measured and manufactured.

Getting the size of your replacement windows right is critically important to successful window installation. Reputable window replacement contractors use custom manufactured windows based on the measurements of your current windows. If a contractor promises to save you money with stock windows, this should be a red flag that quality is not paramount for this business.

Warranty Basics

Warranties are only as valuable as the terms written into them. Companies offering a *full warranty* must repair or replace the product during the specified warranty period. This includes the labor required to fix or replace the defective product.

A *limited warranty* only covers specified parts, services or repairs of particular defects. The seller spells out which items are covered in the body of the warranty. Exclusions can include broad statements like:

- Any condition or failure of performance not primarily AND directly caused by the window manufacturer's design, materials or manufacture;
- Faulty or improper window installation or installation not in conformity with industry standards or instructions; and
- Failure to maintain windows and frames in accordance with manufacturer care instructions.

Non-prorated Warranties Vs. Prorated Warranties

A *non-prorated warranty* protects all aspects of the repair or replacement of a defective product for the duration of the term. This may also be referred to as a Lifetime Warranty. On the other hand, a *prorated warranty* means that homeowners may incur some of the costs of repair or replacement because the manufacturer will only pay for the part or one aspect of the product that failed.

Even when the warranty is touted as a non-prorated warranty in the title, some manufacturer warranties go on to divide the warranty into non-prorated and prorated terms in the small print. For instance, a manufacturer may offer a 20-year warranty but only the first ten years non-prorated and the last ten years prorated. Depending on the type of product you are buying, this makes sense for the manufacturer because it takes into consideration the increased risk brought on by age.

Manufacturer's Warranty Vs. Workmanship Warranty

Finally, the best manufacturer's warranty in the world will not protect you from shoddy workmanship or installation mistakes. That is why you should always get a detailed written proposal from your contractor about the work that will be performed and a written **workmanship warranty** along with the manufacturer's product warranty.

Finding the right contractor

It can be a challenge to find trustworthy, unbiased sources of information when looking for a home improvement contractor. You'll definitely want to check with the Better Business Bureau (BBB) for information about complaints against the business, ask friends and co-workers for recommendations, and even check social media sites for information.

You can and should look at third party review sites as well, but keep in mind that reviewers on these sites run to the extreme, so you'll usually hear only from the happiest or most unhappy customers. These reviews represent just a fraction the total number of jobs a contractor completes. You also run the risk of finding fake or malicious reviews, paid for by the competition.

At Home Town Restyling, we ask our customers to complete a customer satisfaction survey on EVERY job we do and publish all of the feedback, even if the feedback is critical. The company we use is [Guild Quality](#) and they have been gathering these unbiased, detailed reviews from actual customers since 2003.



Hiring a Contractor vs. Sub-Contractor

Finding the right contractor to work on a major home improvement project like window replacement will require some footwork. It may be tempting to hire a door-to-door contractor on the spot because they offer a great deal. Or, maybe you found some cheap windows at a store and the retailer offers to provide a crew for you. These are risky moves.



Keep in mind that in many cases, the subcontractors who show up at your home to install the windows don't actually work for the store or a local company. They are independent crews paid a flat fee to install each window. With this set-up, they have an incentive to do the installations as quickly as possible with the least expensive materials to increase their profit margins.

They may not even have their own insurance. This matters because your home insurance company assumes that any contractor you pay to work in your home is insured. If a work-related accident occurs, your home insurance policy may not pay for either medical bills or worker's compensation.

[The National Association of Home Builders \(NAHB\)](#) offers these guidelines for picking a home improvement contractor:

- Make sure they are licensed and insured. All professional contractors should be insured and able to show their certificate proving such insurance.
- Don't use a contractor that asks you to sign a document before you've hired them. If they want you to sign an "estimate" or "authorization", look out. They may be trying to get you to sign what is an actual binding contract.
- Use a contractor that provides you a written contract. Don't hire anyone who tells you a contract "won't be necessary."
- Don't use a contractor that requires cash or payment in full before starting the job. Deposits towards materials are common, but only pay it once you have a contract signed by both you and the contractor.
- Beware a contractor who vastly underbids all other contractors. They may have the best price, but that doesn't guarantee the best work.
- Be skeptical of "special" pricing or being "chosen" for a demonstration project at a special low price, or that a low price is good only if you sign a contract today.
- Use a contractor who can provide customer references. Professional contractors should have current references they can provide from current and past clients – and you should be able to reach those references, not just an answering machine.
- Use a contractor with a permanent, local address. Professionals have a physical office, mailing address, phone, and email. They should respond to your queries in a timely manner. Make sure you can verify the contractor's business address.
- Use a contractor who obtains the building or remodeling permits. Professional contractors go to the county or state offices and get permits for their work themselves. Asking the homeowner to do it is a sign that they are not a legitimate contractor.

Conclusion

Window replacement and home ownership is a long-term investment. It's not just the initial cost of the windows and the installation that you have to consider – there's also the cost of ownership that plays out over time in energy costs, comfort and the cost of early window replacement. As a rule of thumb, most homeowners who pay 15% extra for quality window replacement save significantly more than that over the life of the windows.

A window replacement project can be intimidating. With this guide, you should be able to compare each window replacement bid not only by price, but also by the kind of service and installation you'll be getting. Be sure to get all your estimates in writing so you can be sure you are getting a fair comparison.

We hope you found this guide helpful. Enjoy your new windows!

