



**KNOXVILLE HISTORIC ZONING COMMISSION
STAFF REPORT - CERTIFICATE OF APPROPRIATENESS APPLICATION**

PROPERTY LOCATION: 325 Union Ave. /
Parcel ID 94 L E 030

FILE NO.: 10-E-19-HZ

DISTRICT: Market Square H-1

MEETING DATE: 10/17/2019

APPLICANT: David Brown Kathryn Wolfe

LEVEL OF WORK: Level II. Major repair or replacement of materials or architectural elements

PROPERTY DESCRIPTION: Vernacular Commercial, c.1935

Two-story, three-bay brick building with modern single pane windows on front façade, chamfered corner. Two-story Italianate Commercial rear portion with access from Union Avenue, arched brick corbelled windows, corbelled cornice. C.1950 stairfront with recessed entry.

► **DESCRIPTION OF WORK:**

Proposed replacement of all second-story windows at 2 Market Square, including single-pane wood windows fronting Market Square, single-pane windows fronting Union Avenue, and single-pane windows above awning windows fronting Union Avenue. Proposed replacement windows are Fibrex composite material, with rectangular frames. Awning windows are also proposed to be replaced with Fibrex windows.

► **APPLICABLE DESIGN GUIDELINES:**

Market Square Design Guidelines and Designation Report, adopted by the Knoxville City Council on July 24, 2001.

B. Upper Story Design

2. If upper story windows have deteriorated and must be replaced, or have been removed in past remodeling, replacement windows shall match the size and shape of the original window openings, and shall be wood.

COMMENTS:

Applicant has provided images of the proposed replacement windows, and a sample window, which is "Renewal by Andersen" brand, made of Fibrex composite material.

STAFF FINDINGS:

1. The building is a contributing resource to the Market Square Historic Overlay and the National Register Historic District.

2. The section of the building fronting Market Square, including the single-pane second-story windows, was modified in 1935 and 1950. The first (leftmost) section of windows fronting Union Avenue reflects the same period of modifications and utilizes the same rectangular, single-pane windows. The second (middle) section of the building fronting Union Avenue features two segmental-arched windows and one round-arched window. The third (rightmost) section features six round-arched windows with decorative brick corbelling. None of the second-story windows are historic.

3. The proposed shape and scale of the replacement single-pane, rectangular windows on the Market Square



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elevation and leftmost section of the Union Avenue elevation is appropriate. The replacements will fit the existing fenestrations and not require further modifications to alter, enlarge, or modify the window openings.

4. For the middle and rightmost sections fronting Union Avenue, the proposed replacement windows are rectangular, single-frame, fixed windows above small rectangular awning windows, similar to the existing. The proposed replacement windows would not fit the shape of the original window openings, which feature half-round arches at the top.

5. Market Square features numerous examples of windows where the window frames and panes fit the round-arched fenestrations, including 12 Market Square; 22, 24, and 26 Market Square. The HZC reviewed window replacement at 1 Market Square/407 Union Avenue in December 2018 and January 2019. These windows were rectangular, but installed from the inside and mounted behind the arched openings so that the original arched window openings were unobscured.

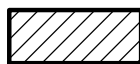
6. The use of Fibrex, a composite window material, is not in keeping with the Market Square design guidelines, which state that replacement windows on the second story "shall be wood."

► **STAFF RECOMMENDATION:**

Staff recommends approval of the replacement of the non-historic second-story windows fronting Market Square and Union Avenue, with the following conditions: 1) the replacement windows be wood, and 2) the replacement windows be designed to better fit the size of the original half-round arched window openings where appropriate, with approval by staff.



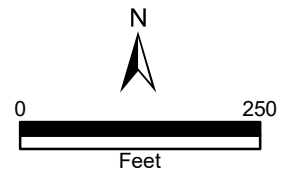
10-E-19-HZ
APPLICATION FOR CERTIFICATE OF APPROPRIATENESS



325 Union Ave. 37902
Market Square H-1

Original Print Date: 10/8/2019
 Knoxville/Knox County Planning -- Historic Zoning Commission

Petitioner: David Brown Kathryn Wolfe



APPLICATION FOR CERTIFICATE OF APPROPRIATENESS
KNOXVILLE/KNOX COUNTY HISTORIC ZONING COMMISSION

Please print all information:

1. NAME OF APPLICANT: DAVID A. BROWN / KATHRYN WOLFE
Address: 325 UNION AVE. KNOXVILLE, TN 37902
Telephone: 865-386-5289 E-mail address: VIDEOPROOF197@GMAIL.COM
Relationship to Owner: SELF

2. NAME OF OWNER: DAVID A. BROWN - 2 MARKET SQUARE LLC
Address: 325 UNION AVE. KNOXVILLE, TN 37902
Telephone: 865-386-5289 E-mail address: VIDEOPROOF197@GMAIL.COM

3. LOCATION OF PROPERTY:
Address: 325 UNION AVE, KNOXVILLE Tax ID/Lot/Parcel No: 094LE 030/

4. LEVEL OF WORK (circle Level)

- Level I Routine repair, replacement of non-original materials in-kind; removal of artificial siding or late additions; installation of gutters, storm windows/doors, screen doors, satellite dishes, or signage; demolition of a noncontributing structure; renewal of COA
- Level II Major replacement of materials or architectural elements; construction of addition or outbuilding
- Level III Construction of a new primary building; subdivision of individually designated property
- Level IV Demolition or relocation of a contributing structure

5. DESCRIPTION OF WORK: (See Part 2 of this application for additional information that is required for submittal with the application. (A copy of all information which is submitted with an application must be retained by the Knoxville/Knox County Historic Zoning Commission.)

Replace Windows on 2nd Floor Residence
*EXISTING WINDOWS ARE WOOD-IMAGES INCLUDED

6. SIGNATURE OF APPLICANT: [Signature] Date: 9/27/2019

Return application to: MPC, Knoxville/Knox County Historic Zoning Commission, Suite 403, City/County Building, 400 Main Street, Knoxville, Tennessee 37902 or Fax: 865-215-2068. Incomplete applications will not be accepted.

FOR STAFF USE ONLY			
Date Received	Approved	Disapproved	Approved As Modified
Date Acted On			



Market Square elevation



Union Avenue elevation showing extent of windows proposed for replacement
(image distorted to show full elevation)



Union Avenue elevation, leftmost section



Union Avenue elevation, middle section



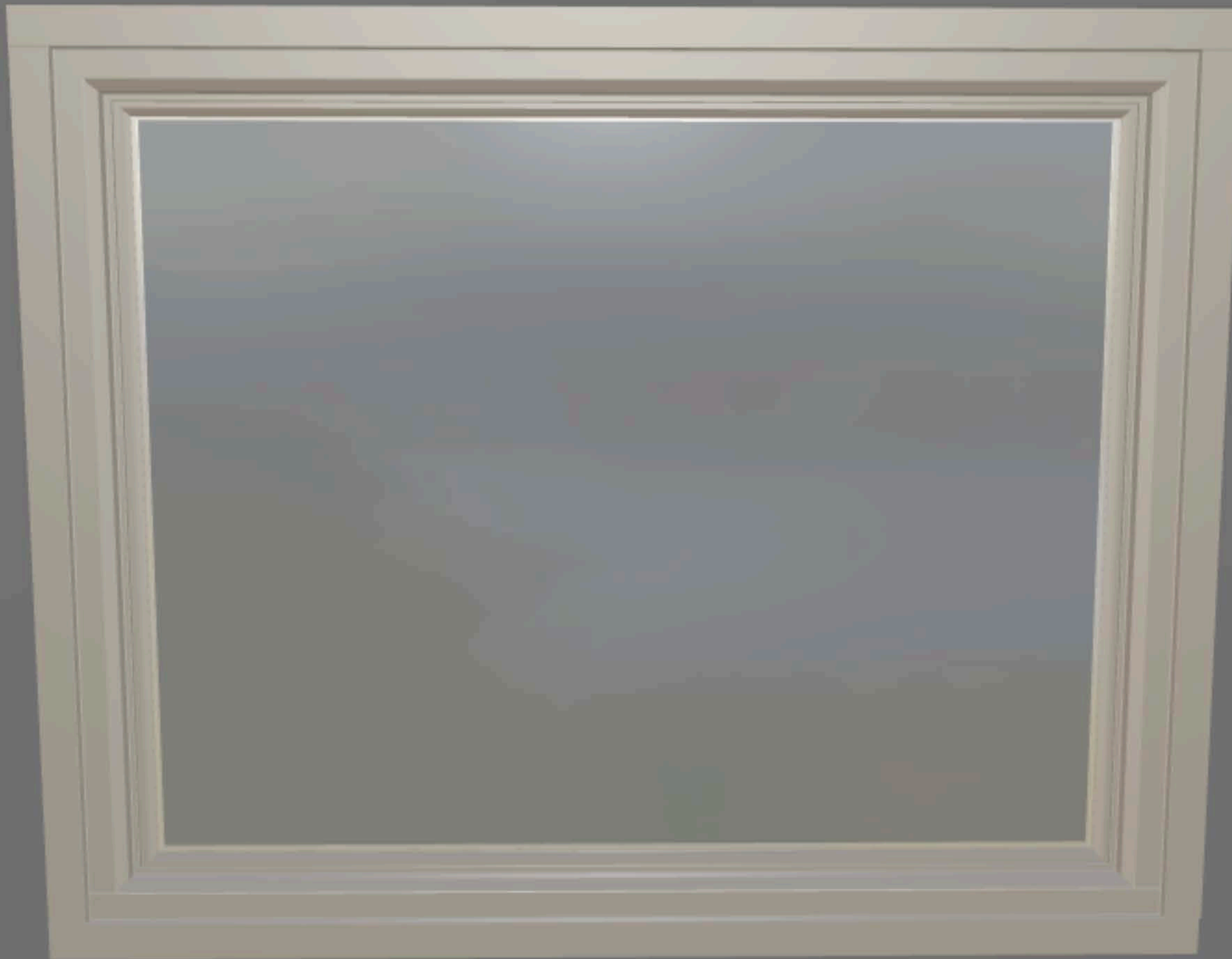
Union Avenue elevation, rightmost section



323 Union Ave

5 bedroom 1

Window - 40.00W x 32.00H



EXTERIOR

360°

INTERIOR



8 bedroom 1

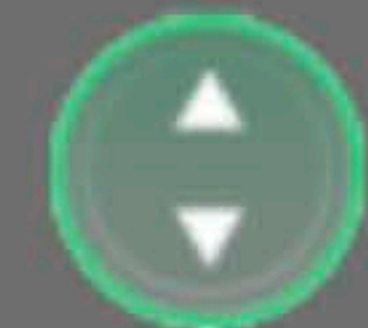
Window - 40.00W x 68.00H



EXTERIOR

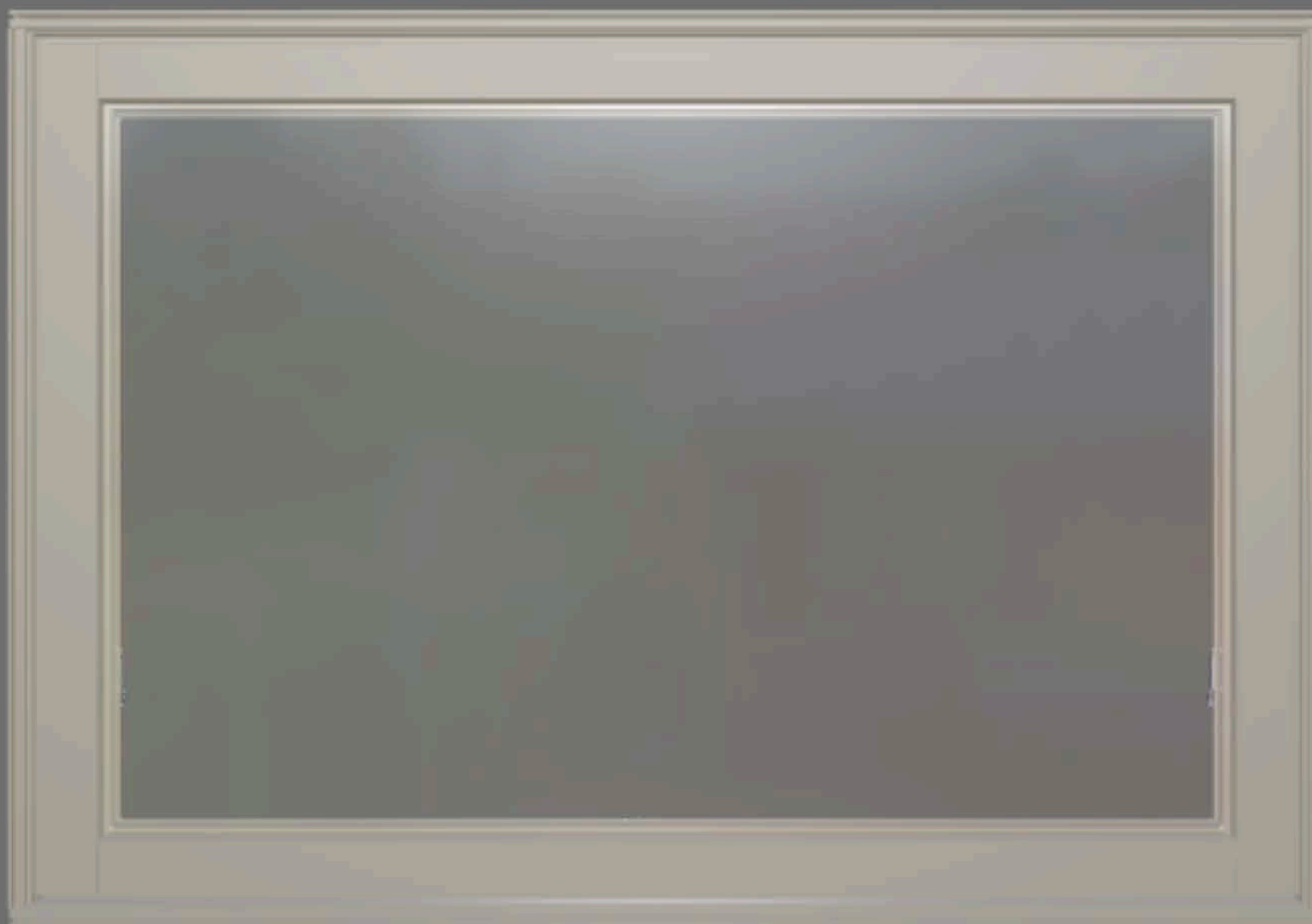
360°

INTERIOR



19 living

Window - 46.00W x 32.00H



EXTERIOR



INTERIOR



FIBREX® MATERIAL: A BETTER ALTERNATIVE, A BETTER WINDOW

Reinventing the window

Innovation has been a hallmark of Andersen Corporation since its founding in 1903. From implementing “mass production” techniques in 1904 (nine years before Henry Ford), to producing the first completely assembled window unit in the industry (1926), to becoming the world’s largest specialized window frame factory in 1929, our guiding principle has always been to “make a product that is different and better.” Each step of the way we have incorporated the latest technologies, fine precision, and high standards in our quest to be better.

Introducing Fibrex® material

One of our most innovative ideas is Fibrex material. This revolutionary composite combines the strength and stability of wood with the low-maintenance features of vinyl. In fact, you might say it’s an evolutionary product—Andersen scientists developed the first hollow vinyl window in the U.S. in 1959, and engineered composite window materials in the 1960s and 1970s. In 1992, Andersen perfected composite window technology, and patented Fibrex material. Today, Fibrex material is the perfect choice for your new replacement windows.

	Fibrex® Material	Other Materials
Strength	Because Fibrex® material is strong, we can make our sash and frames narrower. Narrower frames mean more glass, more view.	Vinyl frames are known to have a higher expansion/contraction rate and can bow, breaking the glass seal.
Insulation	Fibrex material has superior thermal insulating properties. Combined with Andersen® High-Performance™ Low-E4® glass, this helps your home stay warmer in winter and cooler in summer. You can save money on your energy bills. Your home feels more comfortable.	Aluminum window frames conduct heat and cold. Heat leaks out of your house in the winter and into your house in the summer.
Low Maintenance	Fibrex material never needs scraping or painting. It won’t rot, decay or mold*.	Fiberglass frames are painted and may need regular maintenance.
Beauty	Renewal by Andersen replacement windows preserve the architectural beauty of your home. Frame and sash design reflect the shape and lines of your original windows. The unique extruded Fibrex material can be made into any kind of window—including curved specialty windows.	Most replacement windows have square profiles that may look artificial in your home. Vinyl frame material is often thicker, reducing glass area. Fiberglass can only be made into straight lineals.
Environmental Responsibility	40% of the raw material by weight used to make Fibrex material is clean, reclaimed wood fiber. Reclaimed materials in the manufacturing process can also be reground and reused. Renewal by Andersen® windows meet Green Seal’s science-based environmental certification standards as well as being ENERGY STAR® qualified for meeting strict energy efficiency criteria set by the U.S. Department of Energy.	Andersen windows are the only windows with Green Seal certification. Fiberglass is a thermoset material and cannot be reformed into new profiles.
Warranty	A window is not just glass and some framing material. It’s a precise combination of glass, frame and quality installation. We back it all with a 20/2/10 Limited Warranty* that is one of the best in the business.	More than half of all remodeling firms have been in business less than four years.** Installation is rarely covered in the written warranty.

*For a copy of the Renewal by Andersen 20/2/10 year limited warranty, contact a sales representative. **Small Business Administration Website, www.sba.gov

Fibrex® material pellets



Fibrex® Material: A Better Material, A Better Performance



Over **100** Years
of innovation and excellence

Andersen Corporation was founded in 1903 and soon revolutionized the way windows were installed by pre-cutting materials for carpenters to assemble on the building site.

Over the years, Andersen proudly introduced other industry milestones, including new technologies and methods that made windows and doors last longer, look better, and function as intended for many years. By the 1950s, Andersen's research and development efforts were laying the groundwork for Fibrex® material and a brand new way to provide homeowners with beautiful, high quality, and efficient replacement windows.

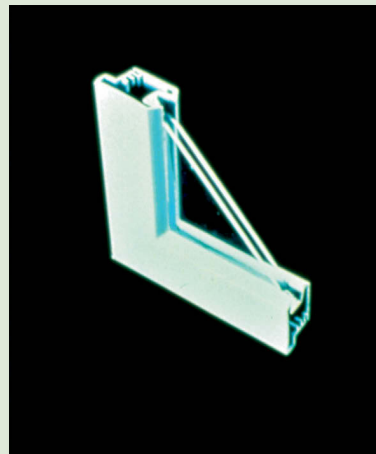
1958 Aluminum rejected as a framing material due to high conduction of heat and cold.

1959 Andersen is the first company to develop a hollow vinyl window in the U.S. but decides it doesn't have enough structural integrity. But the low maintenance feature of the vinyl had possibilities.

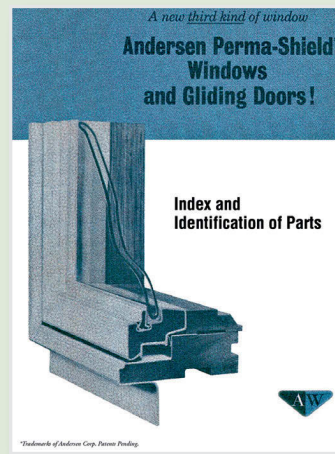
1966 Andersen creates the "clad-wood" window and door category (still the standard of excellence in stock-size new construction). Andersen Research & Development invents a way to weld the corners together for airtight, watertight performance.

1970s Over the decades, the company learns to approach manufacturing with the aim of extending, preserving and protecting resources. From the supply chain to the manufacturing line to the products themselves, Andersen strives to improve the return on its resources by making windows and doors that perform and last.

1970s Andersen sees the extra wood created by its manufacturing process as a potential material resource. The company develops window sash made from reclaimed wood fibers and thermoplastic polymers. The new material performs and weathers well. But manufacturing methods are inefficient until developments are made in the next decade.



Andersen® hollow vinyl window (1959)



Perma-Shield® clad casement (1966)



Fibrex® material
Sub-sill support for Frenchwood® hinged patio door (1993)



"L-Joint" visual appearance environmental test

1968-78 The price of wood increases 400% in 10 years. Wood's unique structure preserves its strength right down to the cellular level. Andersen expands its use of reclaimed wood fibers into pressed wood boards for hidden parts of the window. Engineered wood-wood pieces combined and pressed together—actually prove stronger than traditional raw wood.

1991 Fibrex® material is patented—it combines the best qualities of wood and thermoplastic polymers.

1993 Fibrex® material used as a sub-sill component in the Andersen® Frenchwood® hinged patio door. The Fibrex® material sill was selected for its superior strength and resistance to rot and decay, and performs exceptionally well in this demanding role.

1995 Renewal by Andersen founded. Now one of the largest window replacement companies in the U.S., Renewal by Andersen windows incorporate over 40% reclaimed wood fiber by weight from other window manufacturing operations.

2008 Renewal by Andersen® windows have achieved the highest SCS certified recycled content of any window replacement company.

Andersen® products and patents have revolutionized the window and door industry for over 100 years, changing the home construction industry, how homes are designed, and even how we live in our homes.

We are constantly testing and introducing new materials. Heat and cold chambers mimic extreme temperature conditions. Simulating devices produce extremes of dry and wet to test all new products. Windows, hardware, finishes and packaging materials all undergo testing.

"Renewal by Andersen benefits from the rich tradition of the Andersen® brand. Customers know that they can trust us, that they will be treated well and that we stand behind our products."

—Paul Delahunt

President of Renewal by Andersen

The company's innovation grows from its talented and committed employees. Andersen family values of excellence, integrity, innovation and partnership speak to the success of its past and guide a future of unlimited possibility.

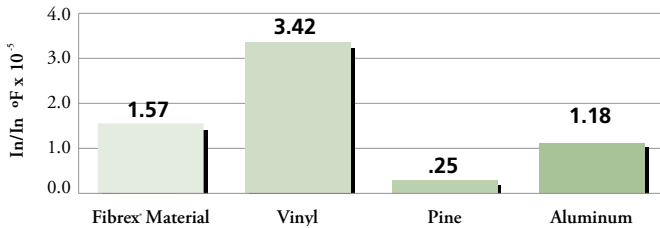
Fibrex® material pellets

The “material” difference

Consider all you expect windows to do for your home—Fibrex® material makes a difference in every instance. Measured across a range of conditions that affect the efficiency, maintenance and beauty of windows, Fibrex® material performs well compared to vinyl, aluminum, fiberglass, and wood. Take a look and we think you’ll agree—replacement windows made of Fibrex® material are the right choice for your home.

Durable and reliable

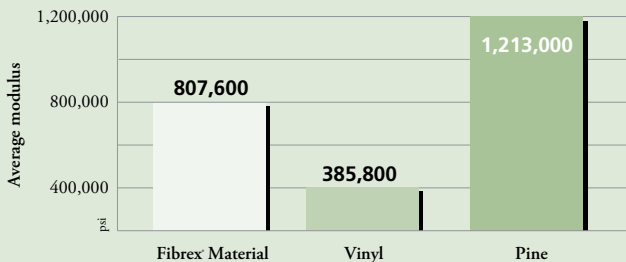
Thermal Expansion



Fibrex material, like wood, fiberglass and aluminum, expands and contracts very little. Vinyl, however, expands and contracts a lot, which can cause cracks, bowing and leakage of air and water. Fibrex material windows will perform better in every season no matter how cold the winters or how hot the summers in your area.

Stable and predictable

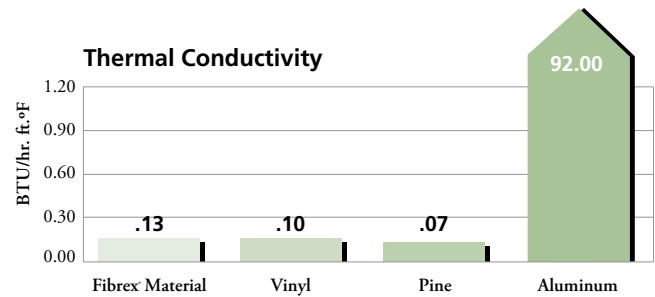
Stiffness



Fibrex material is twice as stable and rigid as vinyl. Wood’s average stiffness is higher, but it’s less predictable than Fibrex® material because of wood’s natural variations like grain, knots and moisture content. Fibrex material is strong so frames can be made narrower than with other framing materials. Narrower frames mean more glass, more view. Fibrex material can be made into any style of window—including curved specialty windows—and in colors to complement every home.

*See the limited warranty for details.

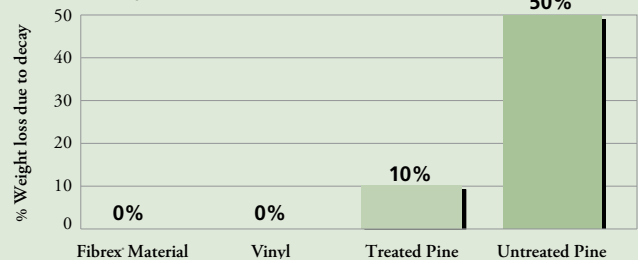
An excellent insulator



Fibrex material has excellent insulating properties on a par with wood, vinyl or fiberglass. Aluminum, on the other hand, transfers heat out of your home and allows outdoor cold temperatures to chill the window areas inside. Fibrex material insulates about 700 times better than aluminum.

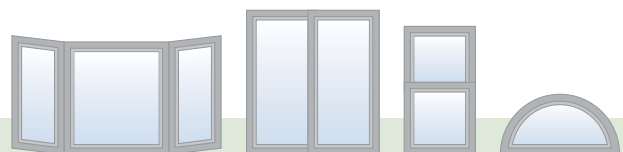
Decay-resistant

Decay of Materials



With Fibrex material, a special polymer formulation surrounds and coats each wood fiber in the manufacturing process, providing exceptional resistance to rot and fungal growth. Renewal by Andersen’s windows, made with Fibrex material, never need scraping or painting because they are warranted not to flake, rust, blister, peel, crack, pit or corrode.*

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renewalbyandersen.com

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